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#### UNIVERSITY OF ILLINOIS BULLETIN

VOL. VIII NOVEMBER 14, 1910 No. 11

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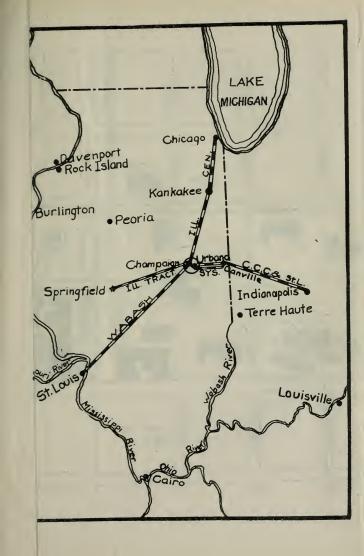
### University of Illinois

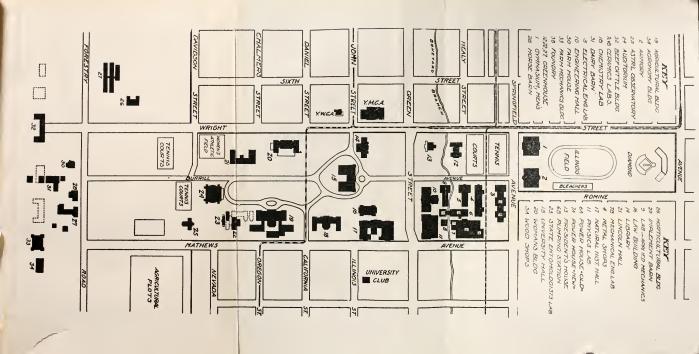
# ANNUAL REGISTER 1910-1911

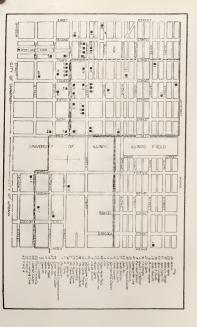


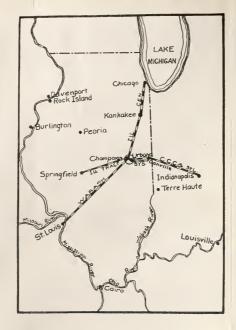
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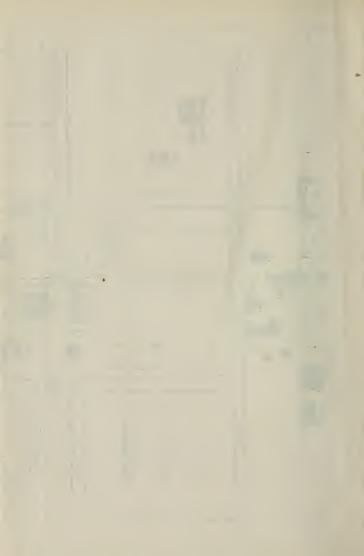












# University of Illinois

### ANNUAL REGISTER

1910-1911

Students and Degrees, 1909-10 Faculty and Courses, 1910-11 General Announcements, 1911-12

URBANA-CHAMPAIGN
PUBLISHED BY THE UNIVERSITY
1910





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(Discontinued June, 1911)

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#### THE UNIVERSITY CALENDAR

1910-1911-1912

#### FOR ALL DEPARTMENTS AT URBANA

#### FIRST SEMESTER, 1910-1911

1910

Sept. 14-17, Wed. to Sat. Sept. 19, 20, Mon., Tues. Sept. 21, Wed., 8 a. m.

4 p. m.

Oct. 3, Mon., 4 p. m. Nov. 1, Tues., 5 p. m.

Nov. 17-19, Thurs. to Sat. Nov. 23, Wed., 12 m.

Nov. 28, Mon., 12 m. Dec. 2, Fri.

Dec. 2, Fri.

Dec. 5, Mon., 4 p. m. Dec. 9, Fri.

Dec. 13, Tues.

Dec. 22, Thurs., 12 m. Dec. 31, Sat., 5 p. m.

1911

Jan. 3, Tues., 12 m. Jan. 26, Thurs.

Jan. 26, Thurs. Feb. 2, Thurs., 5 p. m.

Feb. 3, Fri.

Entrance examinations

Registration days Instruction begun

Freshman convocation

Senate meeting

Latest date for formal announcement of thesis subjects

High school conference Thanksgiving recess begun

Instruction resumed

Illinois Day

Senate meeting Junior promenade

Christmas concert

Holiday recess begun

Latest day for submission of outlines of theses by candidates for professional degrees in engineering

Instruction resumed

Semester examinations begun

End of first semester

Annual sophomore cotillion

#### SECOND SEMESTER, 1910-1911

Feb. 6, 7, Mon., Tues. Feb. 6, Mon., 4 p. m.

Feb. 8, Wed., 8 a. m.

Registration days Senate meeting

Instruction begun

Feb. 12, Sun. Feb. 24, Fri. March 2, Thurs. March 4, Sat. March 14, Tues.

April 1, Sat., 5 p. m.

April 3, Mon., 4 p. m. April 13, Thurs., 12 m. April 18, Tues., 12 m. May 8-10, Mon. to Wed. May 13, Sat., 12 m.

May 19, Fri., evening May 18-20, Thurs. to Sat. May 20, Sat.

May, between 15 and 31

May 30, Tues. June 1, Thurs.

June 3, Sat., 12 m.

June 8, Thurs. June 11, Sun. June 12, Mon.

June 13, Tues. June 14, Wed. Lincoln Day Annual military ball University Day Annual band concert Annual meeting of the Board of Trustees Latest day for filing of completed theses by candidates for professional degrees in engineering Senate meeting Easter recess begun Instruction resumed May Festival Latest date for receipt by the Dean of the Graduate School of certified copies of doctors' theses Interscholastic oratorical contest Public school art exhibit Interscholastic athletic meet Hazelton prize drill Annual inspection Company competitive drill Military Day Latest day for acceptance of under- . graduate theses Semester examinations begun Latest day for receipt by the Dean of the Graduate School of certified copies of masters' theses

Fortieth Annual Commencement

Baccalaureate address

Semester examinations ended

#### FIRST SEMESTER, 1911-1912

Class Day Senior ball

Alumni Day

Sept. 13-16, Wed. to Sat. Sept. 18, 19, Mon., Tues. Sept. 20, Wed., 8 a. m.
4 p. m.

Entrance examinations Registration days Instruction begun Freshman convocation Oct. 2, Mon., 4 p. m.

Nov. 6, Mon., 5 p. m.

Nov. 23-25, Thurs. to Sat. Nov. 29, Wed., 12 m. Dec. 2, Sat. Dec. 4, Mon., 12 m.

4 p. m. Dec. 8, Fri. Dec. 12, Tues.

Dec. 22, Fri., 12 m. Dec. 30, Sat., 5 p. m.

1912 Jan. 3, Wed., 12 m. Jan. 25, Thurs.

Feb. I, Thurs., 5 p. m. Feb. 2, Fri.

Senate meeting

Latest day for announcement of subjects for all undergraduate and graduate theses

High school conference Thanksgiving recess begun

Illinois Day

Instruction resumed

Senate meeting Junior promenade

Christmas concert Holiday recess begun

Latest day for submission of outlines of theses by candidates for professional degrees in engineering

Instruction resumed Semester examinations begun End of first semester Annual sophomore cotillion

#### SECOND SEMESTER, 1911-1912.

Feb. 5, 6, Mon., Tues. Feb. 5, Mon., 4 p. m. Feb. 7, Wed., 8 a. m. Feb. 12, Mon. Feb. 23, Fri. March 2. Sat.

March 11, Tues.

April I, Mon., 4 p. m. April I, Mon., 5 p. m.

April 4, Thurs., 12 m. April 9, Tues., 12 m. May 13-15, Mon. to Wed. May 17, Fri., evening May 16-18, Thurs. to Sat. May 18, Sat.

Registration days Senate meeting Instruction begun Lincoln Day Annual military ball University Day Annual band concert

Annual meeting of the Board of Trustees

Senate meeting

Latest day for filing of completed theses by candidates for professional degrees in engineering

Easter recess begun Instruction resumed May Festival

Interscholastic oratorical contest Public school art exhibit Interscholastic athletic meet

May 18, Sat., 5 p. m.

. m. Latest day for receipt by the Dean of the Graduate School of certified

copies of doctors' theses Hazelton prize drill

May, between 15 and 31

Annual inspection

May 30, Thurs.

Company competitive drill Military Day

June 1, Sat., 12 m.

Semester examinations begun

Latest day for acceptance of undergraduate theses

Latest day for receipt by the Dean of the Graduate School of certified

copies of masters' theses Semester examinations ended

Baccalaureate address

June 6, Thurs. June 9, Sun. June 10, Mon.

Class Day Senior ball

June 11, Tues. June 12, Wed. Alumni Day
Forty-first Annual Commencement

#### BOARD OF TRUSTEES

	CHARLES S. DENEENSpringfield
	The President of the State Board of AgricultureEx Officio  JOHN M. CREBS
	THE SUPERINTENDENT OF PUBLIC INSTRUCTION
_	TERM EXPIRES WILLIAM L. ABBOTT, 139 Adams Street, Chicago1911
	*DR. CHARLES DAVISON, 103 State Street, Chicago 1911
×	MRS. MARY E. BUSEY, Urbana
	MRS. CARRIE ALEXANDER-BAHRENBURG, Belleville 1913
	FRED L. HATCH, Spring Grove 1913
	A. P. GROUT, Winchester
×	MRS. LAURA B. EVANS, Taylorville
þ	ARTHUR MEEKER, Union Stock Yards, Chicago 1915
	ALLEN F. MOORE, Monticello
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<sup>\*</sup>Resigned September 1, 1910.

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 H. W. Giese
 Bloomington

 E. H. Ladish
 Chicago

 Frank Thomas
 Cairo

 S. C. Yeomans
 Chicago

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IOSEPH FULKERSON

Jersevville

President of Illinois Live Stock Breeders' Association

R. O. Graham

President of Illinois State Horticultural Society

C. A. Rowe Jacksonville
President of Illinois Corn Growers' Association

S. L. Washburn

Springfield

President of Illinois State Florists' Association

L. N. Wiggins

Springfield
President of Illinois State Dairymen's Association

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 Marengo

 J. P. MASON
 Elgin

 JOSEPH W. NEWMAN
 Elgin

 L. A. SPIES
 St. Jacob

 Lewis N. Wiggins
 Springfield

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C. A. Rowe

H. J. Sconce

S. W. STRONG

C. P. WAGNER

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W. H. RUDD

I. C. VAUGHAN

F. L. WASHBURN S. L. Washburn

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M. P. LANTZ

A. N. ABBOTT

RALPH ALLEN

W. E. BRADEN

F. I. MANN

J. P. MASON

Curran Jacksonville Sidell Pontiac

Pontiac

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Bloomington Chicago

Neoga Cobden Bloomington

Centralia Springfield

White Hall Jersevville Shirley Winchester Carlock

Morrison Delavan Cutler Gilman

Elgin

Soil Section

F. H. CLARK

Chicago

Danwille

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For Board of Trustees, University of Illinois

A. Bement Chicago

For Western Society of Engineers

For Western Railway Club

W. F. M. Goss Urbana

For Engineering Experiment Station

ADOLPH MUELLER Decatur
For Illinois Manufacturers' Association

CARL SCHOLZ Chicago

For Illinois Coal Operators' Association

Conference Committee on Electric Traction Tests

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Trustee of the University of Illinois

E. J. Berg Urbana
Professor of Electrical Engineering, University of Illinois

L. E. Fisher

Consulting Engineer

T. P. GAYLORD · Chicago

General Manager, Westinghouse Electric Company

W. F. M. Goss

Urbana

Director of the Engineering Experiment Station, University of

Illinois

EDWARD C. SCHMIDT Urbana
Professor of Railway Engineering, University of Illinois

B E. Sunny Chicago
General Manager, General Electric Company

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A. W. GATES

W. D. GATES

D. V. Purington

J. W. STIPES

Danville Monmouth

Chicago Chicago

Champaign

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  - MRS. MARY ELIZA FAWCETT, A.M., Acting Dean of Women

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- George Henry Meyer, A.M., Assistant Dean of the College of Literature and Arts
- WILLIAM THOMAS BAWDEN, A.B., B.S., Assistant Dean of the College of Engineering
- ARTHUR ROY WARNOCK, A.B., Assistant Dean of Men
- NATHANIEL HAY, Purchasing Agent
- OREN ELMER STAPLES, Chief Clerk
- Joseph Morrow, Superintendent of Buildings
- EVELYN ATKINSON, Superintendent of Grounds
- Burt Eardley Powell, Ph.D., Private Secretary to the President

  James Herbert Kelley, B.S., A.M., Chief Clerk in the President's

  Office

HARRISON EDWARD CUNNINGHAM, A.B., Assistant Registrar

#### SENATE

(The members of the Council of Administration are also members of the Senate.)

- Samuel Walker Shattuck, C.E., LL.D., Professor of Mathematics
- NATHAN CLIFFORD RICKER, D.Arch., Professor of Architecture
- IRA OSBORN BAKER, C.E., D.Eng., Professor of Civil Engineering
- Stephen Alfred Forbes, Ph.D., LL.D., Professor of Entomology
- CHARLES WESLEY ROLFE, M.S., Professor of Geology
  - DONALD McIntosh, V.S., Professor of Veterinary Science
    - Arthur Newell Talbot, C.E., Professor of Municipal and Sanitary Engineering
  - SAMUEL WILSON PARR, M.S., Professor of Applied Chemistry
- HERBERT JEWETT BARTON, A.M., Professor of the Latin Language and Literature and Secretary of the Senate
  - "CHARLES MELVILLE Moss, Ph.D., Professor of the Greek Language and Literature

-Daniel Kilham Dodge, Ph.D., Professor of the English Language and Literature

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ALBERT PRUDEN CARMAN, Sc.D., Professor of Physics

+ARTHUR HILL DANIELS, Ph.D., Professor of Philosophy

\*EDWIN GRANT DEXTER, Ph.D., Professor of Education
ISABEL BEVIER, Ph.M., Professor of Household Science

CYRIL GEORGE HOPKINS, M.S., Ph.D., Professor of Agronomy

MORGAN BROOKS, Ph.B., M.E., Professor of Electrical Engineering

HERBERT WINDSOR MUMFORD, B.S., Professor of Animal Husbandry

+ George A Huff, Director of the Department of Physical Training

+ Joseph Cullen Blair, M.S.A., Professor of Pomology

+ WILBER JOHN FRASER, M.S., Professor of Dairy Husbandry

+\*THOMAS EDWARD OLIVER, Ph.D., Professor of the Romance Languages

HARRY SANDS GRINDLEY, Sc.D., Professor of Animal Chemistry

- NEWTON ALONZO WELLS, M.P., Professor of Architectural Decoration

Stephen Sheldon Colvin, Ph.D., Professor of Psychology
James Wilford Garner, Ph.D., Professor of Political Science

Horace Adelbert Hollister, A.M., Assistant Professor and High School Visitor

JAMES McLaren White, B.S., Supervising Architect and Professor of Architectural Engineering

MAURICE HENRY ROBINSON, Ph.D., Professor of Industry and Trans-

FREDERICK GREEN, A.M., LL.B., Professor of Law

EDWARD JOHN LAKE, B.S., Assistant Professor of Art and Design  $\mathbb{R}$  and Acting Head of the Department

- EDWARD BARTOW, Ph.D., Professor of Analytical Chemistry and Director of the State Water Survey

GUY STANTON FORD, Ph.D., Professor of Modern European History

George Abram Miller, Ph.D., Professor of Mathematics

WILLIAM ALBERT NOYES, Ph.D., LL.D., Professor of Chemistry and  $mathread{ }
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ERNEST RITSON DEWSNUP, A.M., Professor of Railway Administration

EDWARD CARY HAYES, Ph.D., Professor of Sociology

On leave

- PHILIP BOVIER HAWK, Ph.D., Professor of Physiological Chemistry
- WILLIAM CHANDLER BAGLEY, Ph.D., Director of the School of Education and Professor of Education
- Julius Goebel, Ph.D., Professor of German
  - CHARLES HENRY MILLS, Mus.B., F.R.C.O.Eng., Director of the School of Music
- George Alfred Goodenough, M.E., Associate Professor of Mechanical Engineering
- PHINEAS LAWRENCE WINDSOR, Ph.B., Librarian and Director of the Library School
- BOYD HENRY BODE, Ph.D., Professor of Philosophy
- R HENRY BALDWIN WARD, Ph.D., Professor of Zoology 1945
- -HARRY HARKNESS STOEK, B.S., E.M., Professor of Mining Engineering
- ERNST JULIUS BERG, Ph.D., Sc.D., Professor of Electrical Engineering and Head of the Department of Electrical Engineering
- Albert Victor Bleininger, B.S., Director of the Department of Ceramics and Professor of Ceramics
- -Frederick Maynard Mann, M.S., C.E., Professor of Architecture and Head of the Department of Architecture
- BENJAMIN CHARLES Morse, Major 27th Infantry, Professor of Military Science and Tactics
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- EDWARD SAMPSON THURSTON, A.M., LL.B., Professor of Law
- R DAVID HOBART CARNAHAN, Ph.D., Associate Professor of the Romance Languages and Acting Head of the Department
- STUART PRATT SHERMAN, Ph.D., Associate Professor of English and Chairman of the Committee of the Department of English
- FRANK CHRISTIAN BECHT, Ph.D., Assistant Professor of Physiology and Acting Head of the Department

#### GENERAL FACULTY

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- EDWARD FULTON, Ph.D., Associate Professor of Rhetoric
- Frank Smith, A.M., Associate Professor of Zoology and Curator of the Museum
  - -OTTO EDUARD LESSING, Ph.D., Associate Professor of German

X

- 4 JOHN WILLIAM LLOYD, M.S.A., Associate Professor of Olericulture -- CHARLES SPENCER CRANDALL, M.S., Associate Professor of Pomology WILLIAM SHIRLEY BAYLEY, Ph.D., Associate Professor of Geology CLARENCE WALWORTH ALVORD, Ph.D., Associate Professor of History - JOHN PASCAL BROOKS, M.S., Associate Professor of Civil Engineering JOHN ARCHIBALD FAIRLIE, Ph.D., Associate Professor of Political
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- + CHARLES FREDERICK HOTTES, Ph.D., Assistant Professor of Botany
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- \* NEIL CONWELL BROOKS, Ph.D., Assistant Professor of German
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- Frances Simpson, M.L., B.L.S., Assistant Professor of Library Economy and Reference Librarian
- + OSCAR ADOLPH LEUTWILER, M.E., Assistant Professor of Machine Design
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- HARRY GILBERT PAUL, Ph.D., Assistant Professor of the English R \* 194 Language and Literature
  - RICHARD SYDNEY CURTISS, Ph.D., Assistant Professor of Organic Chemistry
  - ANNA MAY PRICE, A.M., B.L.S., Assistant Professor of Library Economy

<sup>\*</sup>On leave.

- Frank Oliver Dufour, C.E., Assistant Professor of Structural Engineering
- \*THOMAS EDMUND SAVAGE, Ph.D., Assistant Professor of Stratigraphic Geology
- CHARLES WESLEY MALCOLM, C.E., Assistant Professor of Structural Engineering
- JAMES HARVEY PETTIT, Ph.D., Assistant Professor of Soil Fertility
- WILLIAM DIETRICH, M.S.A., Assistant Professor of Swine Husbandry
  - FRED HENRY RANKIN, Assistant Professor and Superintendent of Agricultural Extension
  - LOUIE HENRIE SMITH, Ph.D., Assistant Professor of Plant Breeding
  - \_ Susannah Usher, B.S., Assistant Professor of Household Science
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  - Cassius Clay Hayden, M. S., Assistant Professor of Dairy Husbandry

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  - \*\* George Tobias Flom, Ph.D., Assistant Professor of the Scandinavian Languages and Literature
- · + John Driscoll Fitz-Gerald II, Ph.D., Assistant Professor of the X Romance Languages
  - LEWIS FLINT ANDERSON, Ph.D., Assistant Professor of Education
  - + SIMON LITMAN, Ph.D., Assistant Professor of Economics
  - CLARENCE WILLIAM BALKE, Ph.D. Assistant Professor of Inorganic. R ★ | 94
    Chemistry
- + EDWARD WIGHT WASHBURN, Ph.D., Assistant Professor of Physical Chemistry
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  - George Frederick Arps, Ph.D., Assistant Professor of Psychology
  - WILLIAM THOMAS BAWDEN, A.B., B.S., Assistant Dean of the College of Engineering
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  - Albert Nash Hume, M.S., Ph.D., Assistant Professor of Crop Production
    - + ARNOLD EMCH, Ph.D., Assistant Professor of Mathematics

#### ASSOCIATES

- CHARLES RICHARD CLARK, B.S., Associate in Architecture
  - ERNEST MILTON HALLIDAY, A.B., LL.B., Associate in English
    - HARRIE STUART VEDDER JONES, Ph.D., Associate in English
    - ARTHUR ROMEYN SEYMOUR, Ph.D., Associate in Spanish and Adviser to Foreign Students

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    - George Foss Schwartz, A.B., B.M., Associate in Violin, Musical History, and Theory
  - ARTHUR DONALDSON EMMETT, M.A., Associate in Animal Nutrition
  - CHARLES CHRISTOPHER ADAMS, Ph.D., Associate in Animal Ecology
  - Duff Andrew Abrams, C.E., Associate in Theoretical and Applied Mechanics
  - Franklin Wales Marquis, B.S., M.E., Associate in Railway Engineering
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  - ORLO DORR CENTER, M.S., Associate in Crop Production
  - CHARLOTTE MITCHELL GIBBS, A.M., Associate in Textiles
  - + Melvin Lorenius Enger, B.S., Associate in Theoretical and Applied Mechanics
  - ROBERT LACY BÖRGER, Ph.D., Associate in Mathematics
- GEORGE CONRAD HABERMEYER, B.S., Associate in Municipal and Sanitary Engineering
  - HERMAN BERNARD DORNER, M.S., Associate in Floriculture
  - Nellie Esther Goldthwaite, Ph.D., Associate in Household Science
  - Nelson William Hepburn, M.S., Associate in Dairy Manufactures
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- TACOB ZEITLIN, Ph.D., Associate in English
- ERNEST BARNES LYTLE, Ph.D., Associate in Mathematics
  - Walter Fairleigh Dodd, Ph.D., Associate in Political Science
  - THACHER HOWLAND GUILD, A.M., Associate in English
  - FRANKLIN WILLIAM SCOTT, A.M., Associate in English
- + V HENRY PERLY RUSK, B.S., Associate in Beef Cattle Husbandry

#### **INSTRUCTORS**

- P DAISY LUANA BLAISDELL, A.M., Instructor in German
- Florence Nightingale Jones, Ph.D., Instructor in the Romance Languages

- DAVID LEONARD SCROGGIN, Instructor in Machine Shop
- \_ Mrs. Constance Barlow Smith, Instructor in Sight Singing and Kear Training; in charge of Public School Methods
- CHARLES FRANCIS BRISCOE, A.M., Instructor in Botany
- + HENRI JACOBUS VAN DEN BERG, Instructor in Piano
- FRANK GARDNER WILSON, B.S., Instructor in Electrical Engineering
- EDGAR THOMAS LANHAM, Instructor in Forge Shop To
- Lewis Irving Neikirk, Ph.D., Instructor in Mathematics
- + Albert Austin Harding, Instructor in Band Instruments
- FREDERICK ELLIS, Instructor in Wood Shop
- DANIEL OTIS BARTO, B.S., Instructor in Secondary School Agriculture
- HARRY FREDERICK GODEKE, B.S., Instructor in Mechanical Engineering Laboratory
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- JAMES ELMO SMITH, B.S., C.E., Instructor in Civil Engineering
- Gertrude Evelyn Moulton, A.B., Acting Director of Physical Training for Women
- HELEN ISHAM, Ph.D., Instructor in General Chemistry
- + George Wellington Pickels, Jr., B.C.E., Instructor in Civil Engineering
- JOHN JEFFERSON RICHEY, B.S., Instructor in Civil Engineering
- George Rawson Wade, Instructor in Voice; in charge of Vocal Department
- Lois Derwentwater McCobb, Instructor in Voice
- John Giffin Thompson, Ph.D., Instructor in Economics

- MAY ELIZABETH FLOYD, Instructor in Piano
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- \* + VIRGIL R FLEMING, B.S., Instructor in Applied Mechanics
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  - RAY THOMAS STULL, E.M., Instructor in Ceramics
  - JOHN KER TOWLES, Ph.D., Instructor in Economics
  - Grinnell Jones. Ph.D., Instructor in Chemistry
- R + Francis Marion Porter, B.S., Instructor in General Engineering
  Drawing
- FLORENCE RISING CURTIS, Instructor in Library School
  - Helena Maude Pincomb, B.S., Instructor in Household Science for Secondary Schools
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    - GUSTAF ERIC WAHLIN, Ph.D., Instructor in Mathematics
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  - A WALTER LEE GAINES, M.S., Instructor in Dairy Husbandry
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    - Harvey Willard Miller, B.S., Instructor in General Engineering Drawing
    - THOMAS SMITH TAYLOR, Ph.D., Instructor in Physics
      - FLORENCE MARY KIRKUP, Instructor in Voice
      - SOPHIE MARY VOSS, Mus. B., Instructor in Piano

- HARRY COLE KENDALL, B.S., Instructor in Railway Electrical Engineering
- FRED B SEELEY, B.S., Instructor in Theoretical and Applied
  Mechanics
- George Paul Boomsliter, B.S., Instructor in Theoretical and Applied Mechanics
- THOMAS BUCK, Ph.D., Instructor in Mathematics
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- CHARLES ALLYN WILLIAMS, Ph.D., Instructor in German R
  - ROBERT KENT STEWARD, B.S., Instructor in General Engineering Drawing
- RUDOLPH WEAVER, Instructor in Architecture
- James Charles Lund, B.S., Instructor in Metal Working
- Attilio Filippo Sbedico, Ph.D., Instructor in the Romance Languages
- EDWARD HARRIS DECKER, LL.B., Instructor in Law
- WILLIAM GREEN HALE, B.S., Instructor in Law
  - PAUL WRIGHT GAWNE, B.S., Instructor in Wood Shop and Foundry
- ARTHUR HOWARD SUTHERLAND, Ph.D., Instructor in Psychology
  - WILLIAM GEORGE ECKHARDT, B.S., Instructor in Soil Fertility
- GEORGE BYRON NORRIS, Instructor in Swimming
- AXEL FERDINAND GUSTAFSON, B.S., Instructor in Soil Physics
- EARL ARCHIBALD WHITE, B.S., Instructor in Agricultural Mechanics +
  - HARMON FREDERICK GONNERMAN, B.S., Instructor in Theoretical and Applied Mechanics
- PAUL EDWARD HOWE, Ph.D., Instructor in Physiological Chemistry
- David Simon Blondheim, Ph.D., Instructor in the Romance
  Languages

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- Edith Bratton, Instructor in Violin
- RYLE, A.M., Instructor in English
  - HARRIET DAY, Instructor in Art and Design
  - JAMES HUTCHISON FORSYTHE, B.S., Instructor in Architecture
  - CARL STANTON STEVENSON, E.M., Instructor in Mining Engineering
  - + ELMER HOWARD WILLIAMS, Ph.D., Instructor in Physics
  - JAY WALTER WOODROW, A.B., Instructor in Physics
  - WILLIAM FITCH ALLEN, A.M., Instructor in Zoology

- + JAMES LLOYD EDMONDS, B.S., Instructor in Animal Husbandry
- + Newton Edward Ensign, A.B., Instructor in Theoretical and Applied Mechanics
  - STANLEY PRINCE FARWELL, M.S., Instructor in Theoretical and Applied Mechanics
  - FRANCIS SEELEY FOOTE, Jr., E.M., Instructor in Railway Civil Engineering
    - NEAL BRYANT GARVER, B.S., Instructor in Civil Engineering
    - GEORGE INNESS GAY, B.S., Instructor in Civil Engineering
- + ROBERT EDWIN KENNEDY, Instructor in Foundry
- + Alonzo Plumsten Kratz, M.S., Instructor in Mechanical Engineering
  - ALVIN LOUIS SHALLER, B.S., Instructor in Mechanical Engineering
  - WILLIAM H SCHEIFLEY, A.M., Instructor in the Romance Languages
    - ERNEST WINFIELD BAILEY, M.S., Instructor in Pomology
  - LEONARD BLOOMFIELD, Ph.D., Instructor in German
  - PERRY JOHN FREEMAN, B.S., Instructor in Machine Construction
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  - JEROME GOODSPEED VAN ZANDT, C.E., Instructor in Civil Engineering
  - ROY CHILDS JONES, B.S., Instructor in Architecture
    - Louis Brandt, B.S., Instructor in Landscape Gardening

#### ASSISTANTS

- SADA ANNIS HARBARGER, A.M., Assistant in English
- GEORGE ERNEST CARSCALLEN, A.B., Assistant in Mathematics
- WILLIAM WELLS DENTON, A.M., Assistant in Mathematics
- CHESTER HUME FORSYTH, A.M., Assistant in Mathematics
- JAMES EVERETT EGAN, A.M., Assistant in Chemistry
- JAMES MERION DUNCAN, Assistant in Wood Shops
  - WILLIAM CLARENCE BRADFORD, Assistant in Machine Shop
- HARRY LOVERING GILL, Director of Track Athletics
  - ROSA LEE GAUT, Assistant in Woman's Gymnasium
  - JAY BOARDMAN PARK, A.B., Assistant in Chemistry
    - JESSE MELANGTHON BARNHARDT, B.S., Assistant Chemist in Dairy Husbandry

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- VIDA LUCILE COLLINS, A.M., Assistant in English
- WINIFRED ALMINA PERRY, A.B., Assistant in English
- EARL KENNETH STRACHAN, M.S., Assistant in Chemistry
- GEORGE RHINE JACKSON, A.B., Assistant in English
- ORA STANLEY FISHER, B.S., Assistant in Soil Fertility
- Alecandre Arséne Girault, B.S., Assistant in Entomology
  - LOMA WILLIAM GOBEN, Assistant in Machine Shop
- \_ JACOB GARRETT KEMP, A.M., Assistant in Physics
- JOSEPH GLADDEN HUTTON, M.S., Assistant in Geology
- LENORE LYDIA LATZER, M.S., Assistant in Botany
- CLARENCE CHESTER LOGAN, B.S., Assistant in Soil Physics
- ARTHUR LUMBRICK, B.S., Assistant in Crop Production
- JAMES EDWARD ACKERT, A.B., Assistant in Zoology
- JESSIE E. BALDWIN, A.B., Assistant in Botany
  - CHARLES ANTHONY BARNHART, A.B., Assistant in Mathematics
- + VERNA BROOKS, A.B., Assistant in Physical Training
  - WILLIAM WALTER CORT, A.B., Assistant in Zoology
- NINA BELLE CRIGLER, B.S., Assistant in Household Science
  - IRA WILMER DICKERSON, B.S., Assistant in Agricultural Mechanics
  - CHARLES ELMER DURST, B.S., Assistant in Olericulture
- KARL JOHN THEODORE EKBLAW, B.S., Assistant in Agricultural Mechanics
- LLOYD FRANCIS NICKELL, A.B., Assistant in Chemistry
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- CHARLES CHESTER PEARCE, A.B., Assistant in Public Speaking
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- \* WARREN ALBERT RUTH, A.M., Assistant in Horticultural Chemistry \* 1949
  - RHEA GORDON SMITH, B.S., Assistant in Chemistry
  - HAROLD WILSON STEWART, B.S., Assistant in Soil Survey
  - SAMUEL M. THOMPSON, A.B., Assistant in English
  - HENRY CLYDE WHEELER, B.S.A., Assistant in Soil Survey
  - MARION CHARLOTTE LANDEE, Assistant in Physical Training and Assistant in Public Speaking
  - FRANK EDGAR MELVIN, A.M., Assistant in History
  - BESSIE ROSE GREEN, A.B., Assistant in Zoology

- SIDNEY VIEL HOLT, B.S., Assistant in Soil Survey
- + RUTH KELSO, A.M., Assistant in English
- LEROY LANG, B.S., Assistant in Dairy Manufactures
- ARNO H. NEHRLING, Assistant in Floriculture
- ROBERT HOWARD STEVENS, M.S., Assistant in Chemistry
- + ROBERT DOUGLASS GLASGOW, A.B., Assistant in Entomology
  - MAURICE COLE TANQUARY, A.M., Assistant in Entomology
  - IRA WILLIAM FISK, B.S., Assistant in Electrical Engineering
  - LORA ATKINS HENION, A.B., Assistant in English
  - CLARENCE ORAN GARDNER, A.B., Assistant in Political Science
  - WILLIAM HENRY HYSLOP, A.B., Assistant in Physics
  - WILFRED FRANCIS LANGELIER, B.S., Assistant in Chemistry
  - PHILIP AUGUSTUS LEHENBAUER, A.M., Assistant in Botany
  - -George Roger La Rue, A.M., Research Assistant in Zoology
  - -Roy Newton Fargo, B.S., Assistant in Men's Gymnasium
  - -Louis De Vries, A.M., Assistant in German
  - IRWIN GLENN FERGUSON, B.S., Assistant in General Engineering Drawing
  - Solon Justus Buck, A.M., Research Assistant in History
  - -CLARENCE JAMES BAKER, A.B., Assistant in Chemistry
  - -ELIZABETH PARNHAM BRUSH, A.B., Assistant in History
  - NELLE MAJOR DICKINSON, B.S., Assistant in Household Science
- 1649 X Walter Elmer Ekblaw, A.B., Assistant in Geology
  - -CHARLES ALBERT FISCHER, A.M., Assistant in Mathematics
  - -IRA GRAESSLE FLOCKEN, A.M., Assistant in Economics
  - FRANK CRAVENS GRANNIS, B.S., Assistant in Soil Fertility
- 1948 & + ALTA GWINN, A.M., Assistant in English
  - WILLIAM SAMUEL HENDRIX, A.M., Assistant in the Romance Languages
  - TRUMAN LEE KELLEY, A.B., Assistant in Psychology
  - HAROLD ELMER MANTZ, A.B., Assistant in the Romance Languages
  - OSCAR ROSS MARTIN, A.B., Assistant in Economics
  - ELMER MASSEY McDonald, B.S., Assistant in Crop Production
  - JOHN HARRISON MINNICK, A.M., Assistant in Mathematics

- PAUL CHRISLER PHILLIPS, A.M., Assistant in History
  - \_EDWARD CLEVELAND RAINEY, A.B., Assistant in English
  - -ORRIN HAROLD SMITH, A.M., Assistant in Physics
  - JOHN STROM, B.S., Assistant in Civil Engineering
  - LUCIUS WELBORNE SUMMERS, B.S., Assistant in Animal Husbandry
  - RALPH EARLE TIETJE, A.B., Assistant in English
  - JOHN HAMILTON WHITTEN, Assistant in Botany and Bacteriology
  - -TRYGVE D YENSEN, B.S., Assistant in Engineering Experiment Station
  - JAMES CHARLES LUND, B.S., Assistant in General Engineering Drawing
  - WILLIS APPLEFORD SLATER, M.S., First Assistant in Engineering Experiment Station
  - IDA EMILY AKIN, A.B., Assistant in Botany
  - PHILIP STEPHAN BARTO, A.M., Assistant in German
  - STELLA MAY HAGUE, A.B., M.S., Assistant in Botany R
  - PAUL ALEXANDER HOFFMAN, M.S., Assistant in Animal Nutrition
  - LLOYD THEODORE JONES, A.M., Assistant in Physics
  - ROBERT WOOD KEETON, A.B., Assistant in Physiology
- \* + Armin Hajman Koller, A.M., Assistant in German
  - WILBUR ROY LEIGHTY, B.S., Assistant Chemist
  - EARL TOWSE MONTGOMERY, E.M., Assistant in Ceramics ROSALIE MARY PARR, A.B., Assistant in Botany R
  - PETER JOSEPH REBMAN, Assistant in Forge Shop \*
  - -WARD HASTINGS TAYLOR, A.B., Assistant in Mathematics
  - -HARRY PEACH CORSON, B.S., Assistant in Chemistry
  - -HUBERT MICHAEL TURNER, B.S., Assistant in Electrical Engineering
    - -Josef Hecht, D.Eng., Research and Lecture Assistant in Chemistry
  - -HENRY HERBERT RADCLIFFE, A.B., Graduate Assistant in Chemistry
  - ELBERT WILLIAMS CRANDALL, Ph.B., Graduate Assistant in Zoology
  - JOHN EARL GUTHERLET, A.B., Graduate Assistant in Zoology
  - WALTER THOMPSON MURDOCK, B.S., Graduate Assistant in Chemistry
  - HUGH BYRON GORDON, M.S., Graduate Assistant in Chemistry
  - -DAVID WRIGHT WILSON, B.S., Graduate Assistant in Chemistry
  - CARL PAXON SHERWIN, B.S., Graduate Assistant in Chemistry

- E. L. Ross, B.S., Graduate Assistant in Chemistry
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Urbana, Ill., and Washington, D. C.

ROBERT Y. WILLIAMS, Engineer in charge of Mine Rescue Station
United States Bureau of Mines, Urbana

James M. Webb, Foreman, Mine Rescue Station Urbana

WILLIAM HENRY HERRON, Geographer U. S. and State Geological Surveys Urbana, Ill., and Washington, D. C. GEORGE EDWARD CAROTHERS, Chief Clerk Urbana

#### MINE RESCUE STATION

EDMUND JANES JAMES, Ph.D., LL.D., President of the University WILLIAM FREEMAN MYRICK GOSS, M.S., D.Eng., Dean of the College of Engineering

HARRY HARKNESS STOEK, E.M., Professor of Mining Engineering FRANK WALBRIDGE DEWOLF, B.S., Acting Director of the State Geological Survey

JOSEPH A. HOLMES, Ph.D., Director of the United States Bureau of Mines Washington, D. C.

ROBERT M. WILSON, C.E., Chief Engineer, United States Bureau of Mines Washington, D. C.

George S. Rice, E.M., Chief Mining Engineer, United States Bureau of Mines Pittsburg, Pennsylvania

James W. Paul, B.S., Mining Engineer in charge of Rescue Work, United States Bureau of Mines Pittsburg, Pennsylvania

ROBERT Y. WILLIAMS, A.B., E.M., Mining Engineer, United States

Bureau of Mines

Urbana, Illinois

JAMES M. WEBB, Foreman, Urbana Mine Rescue Station



# PART I GENERAL INFORMATION

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# PART I. GENERAL INFORMATION

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# HISTORY

#### 1862. The Morrill Land Grant

By this act the national government donated to each state in the Union public land scrip, in quantity equal to 30,000 acres for each senator and representative in Congress, "for the endowment, support, and maintenance of at least one college, whose leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, \* \* \* \* in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

On account of this grant the State pays the University, semi-annually, interest at the rate of five per cent on about \$610,000 and deferred payments on land contracts amounting approximately to \$35,000.

#### Location chosen

To secure the location of the University several counties entered into competition by proposing to donate to its use specified sums of money or their equivalent. Champaign County offered a large brick building in the suburbs of Urbana, erected for a seminary and nearly completed, about 1,000 acres of land, and \$100,000 in county bonds. To this the Illinois Central Railroad added \$50,000 in freight.

# 1867. Incorporation

The institution was incorporated February 28, 1867, under the name of the Illinois Industrial University. It was placed under the control of a Board of Trustees, consisting of the Governor, the Superintendent of Public Instruction, and the President of the State Board of Agriculture, ex officio members, and twenty-eight citizens appointed by the Governor. The chief executive officer was called the Regent, and was made an ex officio member of the Board and the presiding officer of both the Board of Trustees and the Faculty.

#### 1868. The University opened

The University was opened on March 2, 1868. The number of students enrolled at this time was about fifty; the faculty consisted of the Regent and three professors. In the course of the first term another instructor was added, and the number of students increased to 77—all young men.

During the first term instruction was given in algebra, geometry, physics, history, rhetoric, and Latin. Work on the farm and gardens or about the buildings was at first compulsory for all students. In March of the next year, however, compulsory labor was discontinued, save when it was to serve as a part of instruction.

#### 1868-9. The first laboratories

During the autumn of 1868 a chemical laboratory was fitted up; and laboratory work in botany was begun the following year.

#### 1870. Pioneer shop instruction

In January, 1870, a mechanical shop was fitted up with tools and machinery, and here was begun the first shop instruction given in any American university. In the summer of 1871 the Wood Shops and Testing Laboratory (burned on June 9, 1900) were erected and equipped for students' shop work in both wood and iron.

#### 1870 Women admitted

On March 9, 1870, the Trustees voted to admit women as students. In the year 1870-71 twenty-four availed themselves of the privilege. Since that time they have constituted from one-sixth to one-fifth of the total number of students.

# 1873. First reorganization of the Board of Trustees

At this time the number of members was reduced from thirty-one (see under 1867 above) to eleven—the Governor and the President of the State Board of Agriculture, ex officio, and nine others, who were still appointed by the Governor. Beginning at this time also, the President of the Board has been chosen by the members from among their own number for a term of one year. (See also under 1887 below.)

# 1877. Authority to confer degrees received

According to the original State law, the usual diplomas and degrees could not be granted by the University; certificates showing the studies pursued and the attainments in each were given instead. The certificates proved unsatisfactory to the holders, and in 1877

the legislature gave the University authority to confer degrees and issue diplomas.

#### 1885. Change of name

In this year the General Assembly changed the name of the institution from the *Illinois Industrial University* to the *University of Illinois*.

1885. The State Laboratory of Natural History transferred to the University

See page 436.

#### 1887. Second reorganization of the Board of Trustees

In 1887 a law was passed making membership in the Board elective, at a general State election, and restoring the Superintendent of Public Instruction as an ex officio member. There are now, therefore, three ex officio and nine elective members.

1887. The Agricultural Experiment Station established at the University

See page 431.

#### 1890. Additional Federal endowment

In 1890 the Congress of the United States made further appropriations for the endowment of the institutions founded under the act of 1862. Under this enactment each such college or university received the first year \$15,000, the second \$16,000, and thereafter was to receive \$1,000 a year additional to the amount of the preceding year, until the amount reached \$25,000, which sum was to be paid yearly thereafter.

# 1892. The Graduate School

Beginning with this year, graduate work was undertaken under the name of the Graduate School, but without the organization of a separate faculty.

# 1896. The School of Pharmacy

On May 1, 1896, the Chicago College of Pharmacy, founded in 1859, became the School of Pharmacy of the University of Illinois. Its building is located at Michigan Boulevard and Twelfth Street, Chicago.

# 1897. The College of Medicine

Negotiations looking to the affiliation of the College of Physicians and Surgeons of Chicago with the University, which had been

going on for several years, were concluded by the Board of Trustees March 9, 1897. Accordingly, the College of Physicians and Surgeons became, on April 21, 1897, the College of Medicine of the University of Illinois. The College is located at Congress and Honore Streets, Chicago.

1897. The School of Music

By vote of the Trustees on June 9, 1897, the department of music, which had been reorganized and enlarged in 1895, was erected into the School of Music, with a separate faculty and organization.

1897. The State Water Survey authorized

See page 438.

1897. The State Library School

In 1897, the School of Library Economy which had been established in 1893 at the Armour Institute of Technology in Chicago was transferred to the University; the Director of that school was appointed Librarian of the University Library; and the State Library School was opened.

1897. The College of Law

Pursuant to action of the Board of Trustees, taken December 8, 1896, the School of Law was organized, and was opened September 13, 1897. The course of study covered two years, in conformity with the existing requirements for admission to the bar of Illinois. In the following November, however, the Supreme Court of the State announced rules relating to examinations for admission to the bar which made three years of study necessary, and the course of study in the Law School was immediately rearranged on that basis. On February 9, 1900, the name of the School of Law was changed, by vote of the Board of Trustees, to College of Law.

1899. The Summer Session

The first summer session of the University was authorized by a vote of the Trustees on January 13, 1899, and was opened in June of that year.

1899. The State Entomologist's Office permanently established at the University

See page 437.

1900. Courses in Business Administration

In 1900 the General Assembly made an appropriation for the establishment of courses of training for business life, and, in accordance with that action, the Trustees approved the organization of the Courses in Business Administration, frequently given elsewhere under the name of School of Commerce.

1901. The College of Dentistry

In accordance with action taken by the Board of Trustees March 12, 1901, a School of Dentistry was organized as a department of the College of Medicine. The School was opened October 3, 1901. The name was changed to College of Dentistry April 27, 1905.

1903. The Board of Examiners in Accountancy created See page 440.

1903. The Engineering Experiment Station established See page 434.

1905. The School of Education

By a vote of April 27, 1905, the Board of Trustees established the School of Education, to provide for the professional training of teachers.

1905. The State Geological Survey established See page 439.

1906. The School of Railway Engineering and Administration

On January 30, 1906, the Board of Trustees created in the College of Engineering a department of railway engineering; on January 22, 1907, supplementing that action, it established the School of Railway Engineering and Administration.

1906-7. The Graduate School organized as a separate faculty

The General Assembly appropriated \$50,000 for the Graduate School, and the Executive Faculty of that school was organized.

1909. A Mine Rescue Station established at the University See page 442.

### THE UNIVERSITY TOWNS

The University of Illinois is situated in Champaign County, in the eastern central part of the state. It lies within the corporate limits of the city of Urbana, and is bounded on the west by the city of Champaign. These two towns form really one community of about twenty thousand inhabitants, in the center of which are the University grounds.

Urbana and Champaign may be reached by the Illinois Central, the Wabash, and the Cleveland, Cincinnati, Chicago, and St. Louis ("Big Four") railroads; also by interurban lines from Danville, Bloomington, Decatur, Springfield, and St. Louis.

Both cities are well paved, well drained, and provided with good water supply. In matters pertaining to health, conditions are excellent.

The moral and religious conditions of the University community are favorable to the welfare of the students. There are twenty-seven churches, representing fourteen denominations, and a number of students' religious associations, leagues, and guilds. Under the State local option law, the liquor traffic has been barred from both cities.

## **EQUIPMENT**

#### BUILDINGS AND GROUNDS

The land occupied by the University and its several departments embraces about 220 acres, besides a farm of 400 acres.

There are at the present time some thirty buildings on the campus, with a total valuation, exclusive of equipment, of \$1,893,500.

#### UNIVERSITY HALL

University Hall (erected 1873) is the "old main building" of the University. It occupies three sides of a quadrangle, and is five stories in height. It is devoted to class rooms, offices, and seminar rooms.

#### LINCOLN HALL

Lincoln Hall, which is now under construction and which will be occupied in the fall of 1911, will have a frontage of 230 feet. The exterior is of brick, stone, and terra cotta. The lines of the building are exceedingly simple, but the entrance and window spandrels are to be embellished with sculpture depicting scenes in the life of Lincoln. This building will provide accommodations for the advanced work in the departments of English, Romance languages, Germanic languages, history, economics, political and social science, and philosophy. Each of these departments will have seminar and conference rooms, which are to be furnished with metal book stacks for the housing of their special libraries. The building will be fireproof.

#### GENERAL SCIENCE GROUP

Natural History Hall (old part erected 1892; addition, 1909) is the largest building on the campus, covering a ground area 135 feet by 275 feet. It is occupied by the departments of botany, entomology, zoology, physiology, geology, and mathematics, together with the offices and equipment of the State Geological Survey, and the State Natural History Survey, and the office of the State Entomological Survey.

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gist. In the center of the building there is a fire-proof museum 51 feet by 63 feet in size, equipped with fire- and dust-proof cases. This room is architecturally the most beautiful interior on the campus.

The Laboratory of Physics (erected 1909) is a three-story brick building trimmed with Bedford limestone. It is of fire-proof construction. The length is 178 feet and the depth of the wings 125 feet. The first floor is rectangular, the court space between the wings being used for the large lecture rooms. A one-story annex, 78 by 28 feet, contains the ventilating and heating fans and the machine shop of the department. The total available floor area, exclusive of the basement, is about 60,000 square feet. The large laboratories and the recitation rooms are mostly in the west wing. The east wing is of heavy construction and contains about 30 smaller laboratories for advanced experimental work. The blue print department of the University occupies rooms on the top floor of the building.

The Chemical Laboratory (erected 1901-2) is a three-story building, the ground plan of which is shaped like the letter E. The extreme dimensions are 230 feet along the front and 116 feet along the wings. The middle rear wing contains the lecture amphitheater, which will seat 350. The end wings contain the general laboratories. The central part of the building is occupied by offices, museum, class and seminary rooms, supply rooms, and a number of special rooms for research work. There is a basement, which contains the ventilating plant and rooms for assaying and metallurgy. In this building are located also the offices and equipment of the State Water Survey.

The Astronomical Observatory (erected 1896) is a brick building with extreme dimensions of 75 by 55 feet. It has three wings and is surmounted by a dome 25 feet in diameter. The building contains a 12-inch equatorial telescope, a 3-inch combined transit and zenith telescope, both by Warner & Swasey, and Brashear, two small equatorials, a Riefler clock, three chronometers, and a number of small instruments for student use.

The Ceramics Laboratory (erected 1910) is a two-story brick building in which are provided a general laboratory, plaster room, pottery room, rough grinding room, machine room, drawing room, library, recitation room, chemical laboratory, and office, all equipped with appropriate apparatus.

The Entomology Building is a two-story building 48 by 20 feet, with basement storerooms, and with two insectary wings of greenhouse construction, each 25 by 20 feet. In the main building is an office for the Entomologist, a stenographer's room, an insectary head

room, the office of horticultural inspection, and a large fire-proof wault. The glass-covered wings are equipped for experimental entomology and life-history studies, one being provided with steam heat.

#### ENGINEERING GROUP

Engineering Hall (erected 1894) is a four-story building, with a frontage of 200 feet, a depth of 76 feet on the wings and 138 feet on the center, and a net room area of 47,000 square feet. On the first and second floors are the instrument rooms of the department of civil engineering, and the recitation rooms and offices of the departments of civil, electrical, and municipal and sanitary engineering; also the engineering lecture room. On the third floor are the offices of the Dean of the College and the Director of the Engineering Experiment Station, and the departments of mechanical engineering and general engineering drawing. The fourth floor is devoted to the architectural department.

The Electrical Engineering Laboratory (erected 1898) is a twostory brick building containing the storage battery and calibration rooms, laboratories, shop, and reading and recitation rooms. The University automatic telephone exchange and the power and lighting plant of the University are located in the wing.

The Mechanical Engineering Laboratory (erected 1905) is a brick' building with a frontage of 120 feet, a total depth of 182 feet, and a net floor area of 24,000 square feet. The front section is two stories high, and contains offices, lecture and computation rooms, and a large instrument room. Back of this are three bays. The middle bay is provided with a concrete testing floor and a 10-ton three-motor traveling crane of 38-foot span. The north bay contains a 5-ton traveling crane and for the present is used for laboratory work in connection with the departments of civil and electrical engineering and theoretical and applied mechanics.

The Laboratory of Applied Mechanics (erected 1901-2) is a brick building having a net floor area of 16,000 square feet. The front part contains the materials testing laboratory, and the rear wing contains the hydraulics laboratory

The Metal Shops (erected 1902) occupy a one-story brick building, with a net floor area of 12,000 square feet, containing a lecture room, two office rooms, a machine shop, and a forge shop. The machine shop is 48 by 140 feet. Power is supplied by a 20-horse power electric motor. A three-ton traveling crane of 12-foot span covers the center of the floor for the entire length.

The Wood Shop (erected 1901-2) and the Foundry (added 1904) occupy a brick building which has a net floor area of 16,000 square feet. The part of the building devoted to the wood shop contains a bench room, lathe room, machine room, and various smaller rooms for lectures, exhibition purposes, etc. The part devoted to the foundry has a large molding floor traversed by a 5-ton traveling erane, and a large basement room for the storage of materials.

#### AGRICULTURAL GROUP

The Agricultural Building (erected 1900) consists of four separate structures, built around an open court and connected by corridors. The main building, three stories in height, contains offices, class rooms, and laboratories for the departments of agronomy, animal husbandry, dairy husbandry, horticulture, and veterinary science; the chemical laboratory of the Experiment Station; administration rooms; and an assembly room with a seating capacity of 500. The other three buildings are two stories high; one is for dairy manufactures, one for farm crops, and one for veterinary science and stock judging. These buildings are of stone and brick, roofed with slate, and contain 113 rooms and a total floor space of nearly two acres. An adjacent glass structure serves the departments of agronomy and horticulture. There are, in addition to these buildings, three dwellings, three barns, and a greenhouse.

The Agronomy Building (erected 1904-5) is 50 by 100 feet in size, of brick and slate, trimmed with stone. It contains a field laboratory for crop work in which yields of experimental plats are studied, sample seeds are stored, and specimens are preserved.

The Animal Husbandry Cattle Feeding Plant has a capacity for feeding 150 steers at a time. It consists of open and closed sheds with paved lots adjoining. A storage barn 44 by 72 feet and an experimental silo complete the experimental cattle feeding plant.

The Beef Cattle Building (erected 1904-5) is a one-story structure of brick and slate, trimmed with stone, 217 feet across the front, with a wing at either end 33 by 49 feet; the central portion rises two stories and is used for the storage of feed. Other portions of the building are used as quarters for the breeding herd, and will accommodate about 100 head of cattle.

Other buildings for the accommodation of live stock are the horse barn, the piggery, and the large South Farm barn.

The Farm Mechanics Building (erected 1906-7) is a three-story brick structure containing class rooms, offices, lecture rooms, drafting

room, library, laboratories, and tool and storage rooms. The third floor, which is reached by an elevator, furnishes storage room for the greater part of \$16,000 worth of farm machinery loaned the College by various manufacturing companies and used for laboratory work. The facilities afforded by this building, with its equipment, make possible the assembling, testing, and adjusting of all the important machines used in farm operations.

The Horticultural Building (erected 1904-5) is a structure of brick and slate trimmed with stone, approximately 50 by 100 feet in size. It is used as a field laboratory for horticultural tests and contains sorting rooms, cold storage, and a laboratory for the mixing of spraying materials and other operations in connection with the horticultural work.

The Floricultural Greenhouses (erected 1908) these are each 105 by 28 feet, and serve as illustrations of modern greenhouse construction and furnish material for the work in commercial floriculture. The glass structures include two other houses, each 68 by 20 feet, and a palm house 40 by 24 feet. These buildings are fully equipped and provided with a large collection of plants, and furnish facilities for work in amateur floriculture and plant propagation.

### fut LAW BUILDING

The Law Building (erected 1878; remodeled 1902) is the second oldest building in the University group. It has two stories and a basement. The upper floor contains the Law Library, the students' conference room, the private offices of the members of the law faculty, and the Moot Court Room, a model court room with a seating capacity of four hundred. On the main floor are the recitation rooms, the Dean's offices, and the faculty room.

### BUILDINGS FOR GENERAL UNIVERSITY USE

The Library Building (erected 1896-7) is modern Romanesque in style, is built of Minnesota sandstone, and measures 167 by 113 feet, with a tower 132 feet high. The first floor, or basement, contains the rooms of the catalog and order departments, the bound newspapers, and the University Station Postoffice. The second, or main floor, contains the general reference room, the periodical reading rooms, a small conference room, and the delivery room, which opens into the second story of the stack. The third floor contains the study room, lecture rooms, and office of the Library School, the Classical Seminar, the Bolter Collection of Insects, a faculty study room, and

offices for the librarian and assistant librarian. The five-story book stack is a rear wing to the building, separated from it by a fire-proof wall. The delivery room is open to the roof and is lighted by a dome of art glass; the lunettes are decorated with frescoes symbolic of the four colleges which are the oldest in the University—Literature and Arts, Science, Agriculture, and Engineering.

The Auditorium (erected 1907-8) is a brick and stone building for general meeting purposes. It contains an auditorium seating about 2,200 and a memorial vestibule. All general University exercises, including convocations and the commencement gatherings, are held in

this building. 7

The Men's Gymnasium (erected 1901) is a three-story building of stone and pressed brick, 100 by 150 feet. On the first floor there is a swimming pool, 26 feet wide, 75 feet long, and 8 feet deep at the lower end, lined with white enamel bricks. This floor contains, also, the general locker room, which is fitted up with all-metal lockers, and with shower, tub, and steam baths; rooms for the University athletic teams; a room for visiting teams; a special dressing room for members of the faculty; and offices for the physical director and the instructors in athletics. The entire second floor is one large room, which is fitted up with all the modern appliances for gymnastic exercises. The third floor contains an elevated running track, 15 laps to the mile, which is properly banked on the turns to secure the greatest speed and comfort in running.

The Armory (erected 1889-90) has a clear floor space of 15,000 square feet in one hall. It is equipped with racks for 1,200 stands of

arms. An annex provides for two pieces of field artillery.

The Woman's Building (erected 1905) is in the New England colonial style of architecture, of reddish brown brick, with white stone trimmings. The central part of the structure is the woman's gymnasium. On the lower floor there are a swimming tank, lockers, dressing rooms, and baths. The upper floor is devoted to the main gymnasium, which is 92 by 50 feet. The north wing of the building is given to the department of household science, and the south wing provides rooms for the social life of the women students.

#### THE PRESIDENT'S HOUSE

The President's House (erected 1896) is a three-story frame building, in the colonial style. The first story is designed primarily for entertaining; large reception and dining parlors are so arranged as to open together into a central corridor. The second and third stories provide library and living rooms.

#### SERVICE BUILDINGS

The Central Heating Station (erected 1902; addition 1910) is 55 by 120 feet. It contains boilers aggregating 1,800 horse-power. A supplemental boiler and power plant, designed ultimately to carry the load of the present station, is equipped with boilers of 1,000 horsepower. These two stations, aggregating 2,800 horse-power, furnish steam for heating and power to all buildings on the campus. A power plant containing a 250-kilowatt direct connected steam engine and dynamo, a 125-kilowatt direct connected Westinghouse engine and generator, and a 100-kilowatt Curtiss turbo-generator, together with the accessories necessary to a complete power station, supplies current for light and power to all parts of the grounds. The pipe-lines of the heating system and the circuits for distributing electricity are carried from the central plant to the several buildings through brick tunnels. Altogether there are now 4,425 feet of tunnels for such purposes. The new boiler and power plant provides temporary quarters for the electric test car of the department of railway engineering.

The Pumping Station of the University water-works is a brick building, 38 by 73 feet, connected with the Central Heating Station. Four S-inch wells, 145 feet deep, supply the University with water. A masonry reservoir provides for a fire-reserve supply. The pumps, tanks, and connections are arranged to give opportunities for experimental work, and also to vary the working conditions in the adjacent hydraulies laboratory. In this building is kept the equipment of the University fire department, including an electric automatic hose and ehemical waron.

#### LABORATORIES

Twenty-two departments of the University are equipped with laboratories. The following list shows the buildings in which these are located:

#### GENERAL SCIENCE LABORATORIES

Botany-Natural History Hall Ceramics—Ceramics Laboratory Chemistry-Chemical Laboratory. Entomology-Natural History Hall Geology-Natural History Hall Physics-Laboratory of Physics Physiology-Natural History Hall Psychology-University Hall Zoology-Natural History Hall

#### ENGINEERING LABORATORIES

Cement-Mechanical Engineering Laboratory Electrical engineering-Electrical Engineering Laboratory Hydraulics-Laboratory of Applied Mechanics Materials testing-Laboratory of Applied Mechanics Mechanical engineering-Mechanical Engineering Laboratory Roads-Mechanical Engineering Laboratory

#### SPECIAL RESEARCH LABORATORIES

Agricultural Experiment Station-Bacteriological laboratory Chemical laboratory Physical laboratory Geological department-Laboratory of economic geology State Entomologist's Office-

State Laboratory of Natural History-State Water Survey-

Laboratory for sanitary water analysis

Agricultural Building

Natural History Hall

Natural History Hall Natural History Hall Chemical Laboratory

#### MUSEUMS AND COLLECTIONS

#### COLLEGE OF LITERATURE AND ARTS

Art.—The University Art Gallery was the gift of citizens of Champaign and Urbana. It is a collection of models for students of art. In sculpture it embraces thirteen full-size casts of celebrated statues, forty statues of reduced size, and a large number of busts and bas-reliefs, making in all over 400 pieces. It includes also hundreds of large autotypes, photographs, and fine engravings, representing many of the great masterpieces of paintings of nearly all the modern schools, and a gallery of historical portraits, mostly large French lithographs, copied from the national portrait galleries of France.

Other collections of value to art students embrace a number of casts of ornament from the Alhambra and other Spanish buildings, presented by the Spanish government; a set of casts from Germany, illustrating German renaissance ornament; a series of art works from the Columbian Exposition; and miscellaneous casts, models, prints, and drawings.

Commerce.—For its courses in industrial economics and commerce the University has a working collection of the materials of commerce; a lantern and several hundred slides; a liberal supply of political and industrial maps; and diagrams and stereoscopic views illustrating various phases of commerce and industry. Most of the articles constituting the commercial museum are the gift of the Philadelphia Commercial Museum.

Education.—In the rooms of the department of education in University Hall is a collection of illustrative material from the manual training departments of various schools; photographs of school buildings; drawings and constructive work by pupils in the public schools; and the nucleus of a representative collection of apparatus for the school laboratory.

#### COLLEGE OF SCIENCE

Botany.—The herbarium contains about 65,000 mounted specimens of plants. The flora of North America is fairly well represented; the collection of species of flowering plants indigenous to Illinois is practically complete; and a considerable collection of foreign species has been made. The collections of fungi amount to 32,000 named specimens, and include a set of those most injurious to other plants, causing rusts, moulds, etc.

Geology.—The geological collections are to be found in the Natural History Building. Lithology is represented by type collections of rocks aggregating 9,000 specimens; 1,000 thin sections of rocks and minerals; a large number of ornamental building stones; a stratigraphic collection to illustrate Illinois geology; a collection of Illinois soils (104), and one of polished marbles, granites, and other ornamental stones.

The mineralogical collection is especially rich in rock-forming minerals, ores, and materials of economic value. It contains over 12,000 specimens, selected to meet the wants of the students; 575 crystal models; and a considerable collection of gems and precious stones.

The paleontological collection (49,000 specimens) contains representative fossils from the entire geologic series, but is especially rich in paleozoic forms. It embraces the private collections of A. H. Worthen (including 742 type specimens); Tyler; McWhorter; Mr. Hertzer; the greater part of the collections made by the Geological Survey of the state under Worthen; 200 thin sections of corals; the Ward collection of casts; and a number of special collections representing the fauna and flora of particular groups.

Zoology.—The zoological collections have been specially selected and prepared to illustrate the courses of study in zoology and to present a synoptical view of the zoology of the state. Most of them are placed in the new museum room in the Natural History Building, and in adjacent corridors. The mounted mammals include a collection of the ruminants of our country and representatives of the other orders of Mammalia except the Sirenia. The same orders are also represented by mounted skeletons.

The collection of mounted birds includes representatives of all the orders and families of North America, together with a number of characteristic tropical, Bornean, and New Zealand forms. The collection is practically complete for Illinois species. There is also a collection of the nests and eggs of Illinois birds.

The cold-blooded vertebrates are represented by a series of mounted skins of larger species, both terrestrial and marine; mounted skeletons of typical representatives of the principal groups; alcoholic specimens; and casts. The alcoholics include series of the reptiles, amphibians, and fishes, the latter comprising about 300 species. The casts represent about seventy-five species, nearly all fishes.

The Mollusca are illustrated by alcoholic specimens of all classes and orders, and dissections showing the internal anatomy of typical forms. There are several thousand shells, belonging to 1,700 species. The collection of Illinois shells is fair but incomplete.

The lower invertebrates are represented by several hundred dried specimens and alcoholics, and by a series of Blaschka glass models.

The embryology of vertebrates and invertebrates is illustrated by several sets of Ziegler wax models and series of sections and other preparations.

In addition to the foregoing, the collections of the State Laboratory of Natural History are available for illustrative purposes, as well as for original investigation by advanced students.

#### COLLEGE OF ENGINEERING

Architecture.—The architectural collections include plaster casts of architectural detail and ornament; 9,400 lantern slides of architectural subjects and 900 slides of painting and sculpture; 20,000 classified plates, photographs, and 2,400 stereoscopic views; a working library of about 1,800 volumes on architecture and the allied arts; a collection of 300 examples of American woods, shown in three sections each; and extensive collections of specimens of building materials, fittings, and appliances.

Civil Engineering.—The civil engineering department has samples of iron, steel, wood, brick, and stone; materials for roads and pavements; models of arches and trusses, one of the latter being full-sized details of an actual modern railroad bridge. The department also possesses a collection of photographs and blue-print working drawings of bridges, metal skeleton buildings, masonry structures, standard railroad construction, etc.

Electrical Engineering.—This department has a collection of samples illustrating standard practice in the industrial applications of electricity. There is also a rapidly growing collection of lantern slides, photographs, blue-prints, drawings, pamphlets, and other engineering data.

Mechanical Engineering.—This department includes in its equipment part of a set of Reuleaux models; models of valve gears; sections of steam pumps; injectors; valves; skeleton steam and water gauges; standard packings; steam-pipe coverings, and drop forgings. There are also examples of castings, perforated metal, defective boiler plates, and set of drills, with numerous samples of oil, iron, and steel. A large number of working drawings from leading firms and

from the United States Navy Department form a valuable addition to these collections.

#### COLLEGE OF AGRICULTURE

The various agricultural departments maintain collections illustrative of their work; prominent among which are those showing typical specimens of standard varieties of corn; wax models of fruit and vegetables; a horticultural herbarium; specimens of breeds of live stock; a collection of farm machinery; and exhibits of negatives and samples showing the progress of certain investigations, especially with fruit, crops, and soils.

See further the description of the facilities for instruction and methods of work of the departments of agronomy, animal husbandry, dairy husbandry, and horticulture, pp. 195-199.

#### SCHOOL OF LIBRARY SCIENCE.

The School has made a collection of books and pamphlets on library science; of library reports and catalogs; of mounted samples showing methods of administration in all departments; of labor-saving devices and fittings; and of photographs and lantern slides illustrating the history of books and libraries.

#### LIBRARIES

### (For the Library Staff, see page 48.)

The general University Library includes all the books belonging to the colleges and schools of the University which are situated in Urbana. The libraries of the Colleges of Medicine and Dentistry and the School of Pharmacy are in Chicago.

On October 1, 1910, the several libraries contained the following number of bound volumes and namphlets:

mber of bound volumes and pampaiets.		
•	Volumes. I	Pamphlets.
General library	166,550	22,000
State Laboratory of Natural His-		
tory library	7,450	18,200
Pedagogical library	600	3,550
Quine medical library	13,500	
Pharmacy library	2,000	
The Library receives about 1,800 serial	l publications	3.

The General Library is housed, for the most part, in the Library building, and is for the use of the whole University. The corps of instruction and administrative officers of the University, the graduate

students, and the members of the senior class have direct access to the shelves; other students may have this privilege upon the recommendation of their instructors. All students have the direct use of 10,700 volumes in the reading rooms, and in addition graduate students have the use of the seminar libraries.

As a part of the General Library are included several special collections: The University of Illinois collection, including printed material illustrating the history of the University; about 280 volumes. College Publications collection, comprising the catalogs, announcements, reports, studies, etc., of other educational institutions; about 4,500 volumes. Theses collection, a complete file of the original copies of the theses presented for graduation from the University of Illinois: they are bound and filed by years; 1,700 volumes. The Dziatzko collection of Library Economy, bought in 1905, the entire library of Karl Dziatzko, librarian of Göttingen University; 300 volumes, 250 pamphlets. The Dittenberger collection of the Classics, bought in 1907, the entire library of Wilhelm Dittenberger, professor of Classical Philology in the University of Halle; 5,600 items. The Heyne collection, purchased by the University in 1909, the philological library of Professor Moritz Heyne of the University of Göttingen: about 5,000 items, principally on German philology and literature. The Karsten collection, principally on French and German philology and literature; this is the library of the late Professor Karsten, presented by Mrs. Karsten.

Seminar and Departmental Libraries. Practical use of the books has separated several collections from the Library Building. Fifteen departments now have books more or less permanently in their care. Seminar rooms for graduate students are provided in the Library Building and in University Hall.

Mason Library of Western History. The library of western history collected by Edward G. Mason, Esq., long president of the Chicago Historical society, is in the Public Library of the city of Champaign, and is accessible to University students.

Regulations. The Library is primarily for free reference use. The privilege of drawing books is accorded to all officers of instruction and government, and to all registered students, and to other accredited persons. Books not reserved for classes may be borrowed for home use for two weeks, and may be renewed for two weeks more if not specially restricted or called for. All books are subject to recall at any time when needed for University work.

General reference books, books reserved for classes, all general periodicals, and certain other groups of books are to be consulted in the reading rooms only. They may not be loaned from the Library except when the reading rooms are closed. They must then be returned by the time the Library next opens.

Books from the stack which are not returned on time are subject to a fine of two cents a day. Books from the reference, reserve, and periodical shelves, as well as some special collections, are subject to a fine of twenty-five cents a day if kept overtime. Books recalled for University work must be returned at once upon receipt of the notice. If not returned within two days after notice is mailed a fine of twenty-five cents a day will be charged. All books lost or damaged must be replaced or paid for.

Hours of Opening. The General Library is open week days during the general session of the University, from 7:45 a. m. to 10 p. m., and on Sundays from 2 p. m. to 6 p. m. During the Summer Session, the Library is open from 7:45 a. m. to 10 p. m. on week days, but is not open on Sundays. During the summer vacation, the library is open from 9 a. m. to 12 m. Permits are given for use at other hours. The Library is regularly closed on New Year's, Independence, Labor, Thanksgiving, and Christmas days.

### ADMINISTRATION

#### GOVERNMENT

The government of the University is vested by law primarily in a Board of Trustees, consisting of twelve members. The Governor of the State, the Superintendent of Public Instruction, and the President of the State Board of Agriculture are members ex officio. The other nine members are elected by the people of the State for terms of six years; the terms of three members expire every second year.

The administration of the University is vested by the Board of Trustees in the President of the University, the Vice-President, the Senate, the Council of Administration, the faculties of the several colleges, and the Deans of the colleges and Directors of the schools.

The President is the administrative head of the University.

The Vice-President has general oversight of the work of instruction, and acts for the President in case of his absence or disability.

The Senate is composed of the full professors and those other members of the faculty who are in charge of separate departments of the various colleges and schools. It is charged with the direction of the general educational policy of the University.

The Council of Administration is composed of the President, the Vice-President, the Dean of the Graduate School, the Deans of Men and Women, and the Deans of the separate colleges. It constitutes an advisory board to the President, and has exclusive jurisdiction over all matters of discipline. The Council does not determine educational policy; but when any matter arises which has not been provided for by common usage, or by rule of the Senate, and cannot be conveniently laid over till the next meeting of the Senate, the Council may act upon the same according to its discretion.

The faculties of the colleges and schools of the University, composed of the members of the corps of instruction of these colleges and schools, have jurisdiction, subject to higher University authority, over all matters which pertain exclusively to these organizations.

The Dean of the Graduate School, the Deans of the several colleges, and the Directors of the schools are responsible for the carrying out of all University regulations within their respective departments.

The Dean of Men and the Dean of Women act as advisers to undergraduate students and are charged with general care of the conduct of these students.

#### DEPARTMENTS AND COURSES

For the purpose of administration, the University is divided into several colleges and schools. These are not educationally separate, but are interdependent, and form a single unit.

The colleges and schools are as follows:

- I. The College of Literature and Arts
- II. The College of Science
- III. The College of Engineering
- IV. The College of Agriculture
  - V. The Graduate School
- VI. The School of Library Science
- VII. The School of Music
- VIII. The School of Education
  - IX. The School of Railway Engineering and Administration
    - X. The College of Law
  - XI. The College of Medicine
- XII. The College of Dentistry
- XIII. The School of Pharmacy

The College of Literature and Arts offers courses in-

- 1. Philosophy and arts, including-
  - (a) The ancient classical languages
  - (b) The Romance languages
    (c) The Germanic languages

  - (d) The English language and literature, including rhetoric (e) Mathematics
  - (f) The political and social sciences-

History

Economics

Accountancy

Political science

Sociology

(g) Philosophical subjects-

Philosophy

Psychology Education

- (h) Art
- (i) Household science

By the grouping of certain elective subjects students in this college are also offered opportunities for specific vocational training as follows:

- 2. Business Administration-
  - (a) General business
  - (b) Consular service
  - (c) Accountancy
  - (d) Banking
  - (e) Railway administration-

Railway traffic and accountancy Railway transportation

- (f) Journalism
- 3. Household science and administration
- 4. Preliminary to law

The College of Science offers courses in-

- 1. General Science, affording opportunity to specialize in:
  - 1. Astronomy
  - 2. Botany
  - 3. Chemistry
  - 4. Education
  - 5. Geology (including mineralogy)
  - 6. Household science
  - 7. Library science
  - 8. Mathematics
  - 9. Physics
  - 10. Physiology
  - 11. Psychology
  - 12. Zoology (including entomology)
- 2. Chemistry
- 3. Chemical engineering
- 4. Ceramics
- 5. Household science
- 6. Science and medicine (combined course)
- 7. Science and engineering (combined course)

The College of Engineering offers courses in-

- 1. Architecture
- 2. Architectural engineering
- 3. Architectural decoration
- 4. Civil engineering
- 5. Electrical engineering
- 6. Mechanical engineering

- 7. Mining engineering
- 8. Municipal and sanitary engineering
- 9. Railway civil engineering
- 10. Railway electrical engineering
- 11. Railway mechanical engineering

The College of Agriculture offers courses in-

- 1. Agronomy
- 2. Animal husbandry
- 3. Dairy husbandry
- 4. Floriculture
- 5. Horticulture
- 6. Household science
- 7. Landscape gardening
- 8. Teachers' course
- 9. Thremmatology
- 10. Veterinary science

Military science and physical training are provided in all the schools and colleges in Urbana.

The Graduate School offers courses in-

Philology, including the classical languages, Romance languages, Germanic languages, and English

Mathematics

Political and social sciences, including history, economics, sociology, and political science

Philosophy, including psychology and education

Physical sciences, including physics, chemistry, astronomy, and geology

Biology, including botany, zoology, entomology, and physiology

Engineering, including architecture, architectural engineering, civil engineering, electrical engineering, mechanical engineering, mechanics, mining engineering, municipal and sanitary engineering, and railway engineering

Agriculture, including agronomy, animal husbandry, dairy husbandry, floriculture, horticulture and thremmatology

Household Science

The School of Library Science (the State Library School) offers a professional course of two years in preparation for the work of the librarian, leading to the degree of Bachelor of Library Science. Beginning in September, 1911, graduation from a college or university of approved standing will be required for admission to the Library School.

The School of Music offers courses in vocal and instrumental music, leading to the degree of Bachelor of Music; and provides

training in public school methods in music.

The School of Education enrolls, at the beginning of their junior year, students already registered in other colleges of the University who are preparing to teach, and directs their work for the remaining two years.

The School of Railway Engineering and Administration offers courses of study leading to the degree of Bachelor of Science in railway civil, railway electrical, and railway mechanical engineering; and also courses in railway transportation and in railway traffic and accountancy leading to the degree of Bachelor of Arts.

The Courses in Business Administration virtually constitute a school of commerce. They include courses in social and industrial economics, consular service, accountancy, banking, railway administration, and journalism, leading to the degree of Bachelor of Arts.

The College of Law offers a course of three years leading to the degree of Bachelor of Law. Beginning in September, 1911, one year of college work in an institution of approved standing will be required for admission to the College of Law.

Students holding the bachelor's degree in arts or science may become candidates in this College for the degree of Doctor of Law.

The College of Medicine offers a course of four years leading to the degree of Doctor of Medicine; and, in conjunction with the College of Science, a course of six years, leading to the two degrees of Bachelor of Arts and Doctor of Medicine.

The College of Dentistry offers a three-year course leading to the degree of Doctor of Dental Surgery.

The School of Pharmacy offers courses in the branches necessary to a scientific and practical knowledge of pharmacy, including pharmacy, chemistry, materia medica, botany, physics, and physiology. The courses lead to the degrees of Graduate in Pharmacy and Pharmaceutical Chemist.

The Summer Session, of nine weeks, offered in 1910 courses in accountancy, agricultural education, art and design, botany, chemistry, drawing (general engineering), economics, education, English, entomology, French, German, history, household science, Latin, manual training, mathematics, mechanical engineering, mechanics (theoretical and applied), microscopical technique, philosophy, physical geography,

physical training for men and for women, physics, political science, psychology, rhetoric, sociology, Spanish, and zoology.

A part of the courses in biology were given at the Biological Station of the State Laboratory of Natural History on the Illinois River.

All the courses given in the Summer Session are of collegiate grade and may be counted toward the bachelor's degree. Certain advanced courses may be counted toward the master's degree.

### **ADMISSION**

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An applicant for admission to any of the colleges or schools of the University must be at least sixteen years of age, and must offer credit for fifteen units\* of high school or other secondary school work, so chosen as to include those prescribed for the particular college he desires to enter.

This credit can be secured by-

- (a) Examination (see page 95.)
- (b) A certificate from an accredited high school (see page 96.)
- (c) Transfer from another university or college (see page 102.)

### ENTRANCE REQUIREMENTS

T

Of the 15 units required, the following 5½ units are prescribed for admission to the freshman class in all the colleges of the University, and no substitutes are accepted:

### List A. Units Prescribed by All the Colleges

Algebra	units
English composition1	unit
English literature2	units
Geometry, plane1	unit

<sup>\*</sup>A unit is the amount of work represented by the pursuit of one preparatory subject, with the equivalent of five forty-minute recitations a week, through 36 weeks; or, in other words, the work of 180 recitation periods of forty minutes each, or the equivalent in laboratory or other practice.

#### TI

Of the 9½ units that remain, certain others are prescribed for admission by individual colleges, and in each case no substitutes are accepted by the college in question.

Units Prescribed in addition by Individual Colleges	
By the College of Literature and Arts:	
History 1	unit
Foreign languages <sup>1</sup> 3	units
By the Colleges of Science <sup>2</sup> and Agriculture:	
Science 2	units
By the College of Engineering:	
Solid and spherical geometry	unit
Physics 1	unit
By the College of Law <sup>3</sup> :	
English and American history 1	unit
By the School of Music:	
History 1	unit
Foreign languages 1 3	units
M:	

#### TTT

The remainder of the required 15 units—after those prescribed (1) by all the colleges, and (2) by the individual college desired, have been counted—must be made up from the subjects in Lists B and C below. For the College of Literature and Arts, only two units from List C may be offered. For the Colleges of Science, Engineering, and Agriculture, three units from List C are accepted. No subject is accepted for an amount less than the minimum, or greater than the maximum, mentioned in the lists.

#### List B. Electives

Astronomy	18 weeks	½ unit
Botany18 or	36 weeks ½ or	1 unit
Chemistry :	36 weeks	1 unit
Civics	36 weeks ½ or	1 unit

All least two of these must be in the same language. All three units must be in Latin if the student wishes to pursue the study of that subject in the University.

<sup>&</sup>lt;sup>2</sup>Two years of German is prescribed (as well as two units in science) for admission to the course in chemical engineering in the College of Science.

For announcement of a new requirement, effective July 1, 1911, see page 257.

Commercial geography18	weeks		½ uni	t
Drawing	weeks ½	or	1 uni	t
English literature (3rd unit)36	weeks		1 uni	t
French	weeks 1	to	4 uni	ts
Geology	weeks $\frac{1}{2}$	or	1 uni	t
Geometry, solid and spherical18	weeks		$\frac{1}{2}$ uni	t
German36 to 144	weeks 1	to	4 uni	ts
Greek	weeks 1	to	3 uni	ts
History36 to 108	weeks 1	to	3 uni	ts
Latin36 to 144	weeks 1	to	4 uni	ts
Physics	weeks		1 uni	t
Physical geography18 or 36	weeks $\frac{1}{2}$	or	1 uni	t
Physiology	weeks $\frac{1}{2}$	or	1 uni	t
Spanish	weeks 1	to	2 uni	ts
Zoology18 or 36	weeks $\frac{1}{2}$	or	1 uni	t

#### List C.\* Additional Electives

Agriculture36 to 72 wee	ks 1	to 2	units
Bookkeeping36 wee	ks	1	unit
Business law18 wee	ks	1/2	unit
Domestic science	ks	1	unit
Economics	ks	1/2	unit
Manual training†	ks 1	to 2	units

#### SUMMARY BY COLLEGES

The requirements listed above may be summarized by colleges as follows:

For the College of Literature and Arts:

- I. List A (prescribed by all the colleges)...... 51/2 units
- II. Special prescriptions by this college-
- Foreign languages (see foot-note, p. 84) .... 3 units

  III. Electives (not more than 2 units from List C)... 5½ units

- 15 units

<sup>\*</sup>The subjects named in List C must be taught in accordance with specifications which are set forth in the High School Manual. Further information may be had on application to the High School Visitor.

<sup>†</sup>In giving credit for manual training the University specifies that the work is to be done by competent teachers, as determined by inspection, and that credit shall not exceed one unit for 360 forty-minute periods of work, including the necessary drawing and shop work.

For the I. II.	Colleges of Science and Agriculture: List A (prescribed by all the colleges) Special prescription by these colleges—	. 5½	units
	Science*		units
III.	Electives (not more than 3 units from List C)	$7\frac{1}{2}$	units
77 (1	C. H The six and a second	15	units
	College of Engineering:	F1/	
I. II.	List A (prescribed by all the colleges)  Special prescriptions by this college—	. 5½	units
11.	Solid and spherical geometry	1/	nnit
			unit
TIT	Physics Electives (not more than 3 units from List C)		units
, 111.	Electives (not more than 5 units from List C)		umits
		15	units
For the	College of Law (but for new announcement see		
I.	List A (prescribed by all the colleges)		
II.	Special prescription by this college—	. 0,2	0.21-02
221	English and American history	. 1	unit
III.	Electives		
		15	units
For the	School of Music:		
I.	List A (prescribed by all departments)	. 51/2	units
II.	Special prescriptions by this school-		
	History	. 1	unit
	Foreign languages (see foot-note 1, p. 84).	. 3	units
III.	Electives	. 51/2	units
		15	units

#### Admission to Other Departments

For admission to the professional departments of the University, the Colleges of Law, Medicine, and Dentistry, and the Schools of Pharmacy and Library Science, see the announcements of those departments.

### DESCRIPTION OF SUBJECTS ACCEPTED FOR ADMISSION

The amount of work in each of the foregoing subjects which corresponds to the minimum number of credits assigned is shown by the description of the subjects below.

<sup>\*</sup>See also, for the College of Science, footnote 2 on p. 84.

- 1. AGRICULTURE.—Courses in agriculture should be arranged for periods of not less than nine weeks each, any two of which may be accepted for a half unit of credit, providing the work covered by each is so closely related in its parts as to constitute one of the generally accepted divisions now recognized in agricultural work, namely, crops and crop production, soils and soil fertility, dairy husbandry, animal types and animal nutrition, poultry, fruits and vegetables, landscape gardening, farm mechanics. At least one-half the time should be devoted to laboratory work, and note-books should be presented.
- Algebra.—Fundamental operations, factoring, fractions, simple equations, involution, evolution, radicals, quadratic equations and equations reducible to the quadratic form, surds, theory of exponents, and the analysis and solution of problems involving these.
- 3. ASTRONOMY.—In addition to a knowledge of the descriptive matter in a good text-book, there must be some practical familiarity with the geography of the heavens, with the various celestial motions, and with the positions of the conspicuous naked eye heavenly bodies.
- 4. BOOKKEEPING.—The bookkeeping unit for college entrance should consist of a working knowledge of single and double entry bookkeeping in the usual lines of business. The student should be able to change his books from single to double entry, from individual to partnership, and from partnership to corporate form of organization. He should understand the use of the various books and papers which arise in any ordinary business. He should know how to keep a set of books, both single and double entry, in retail and in wholesale or jobbing business and manufacturing involving the use of the voucher system. His work should be done under the immediate supervision of a teacher, and he should devote at least ten periods, of not less than forty-five minutes each, per week for one school year, to this subject.
- 5. BOTANY.—A familiar acquaintance is required with the general structure of plants, and of the principal organs and their functions, derived to a considerable extent from a study of the objects; also a general knowledge of the main groups of plants; and the ability to classify and name the more common species. Laboratory notebooks and herbarium collections should be presented.
- 6. BUSINESS LAW.—The amount of business law which is accepted is indicated by the ground covered in any of the ordinary text-books on the subject, such as Spencer's Elements of Commercial

Law, Burdick's Business Law, and White's Elements of Commercial Law.

- 7. CHEMISTRY.—The instruction must include both text-book and laboratory work. The work should be so arranged that at least one-half of the time shall be given to the laboratory. The course as it is given in the best high schools in one year will satisfy the requirements of the University for the one unit for admission. The laboratory notes, bearing the teacher's indorsement, must be presented as evidence of the actual laboratory work accomplished. Candidates for admission may be required to demonstrate their ability by laboratory tests.
- 8. CIVICS.—Such an amount of study of the United States Constitution, its history, and interpretation, as is indicated by any of the usual high school text-books on civil government, is regarded as sufficient for one term. The work may advantageously be combined with the elements of political economy.
- COMMERCIAL GEOGRAPHY.—The amount and character of the work accepted in this subject is indicated by the scope of such books as Redway's Commercial Geography, Adam's smaller book on the same subject, the text-book of Gannett, Garrison, and Houston, or Trotter's work.
- 10. Domestic Science.—(a) An equivalent of 180 hours of prepared work with at least two recitation-periods a week in foods, (b) An equivalent of 180 hours of prepared work with at least one recitation period a week in clothing. (c) An equivalent of 180 hours of prepared work with at least two recitation periods a week on the home. (Two periods of laboratory work are considered equivalent to one period of prepared work.) Of the foregoing, (a) will be accepted as a unit's work; or two half units taken from (a) and (b), or (a) and (c), or (b) and (c) will be accepted as a unit's work. The work is to be done by trained teachers with individual equipment, as determined by inspection.
- 11. Drawing.—Free-hand or mechanical drawing, or both. Drawing-books or plates must be submitted. The number of credits allowed depends on the quantity and quality of the work submitted.
- 12. Economics.—The principles of economics, with economic history, as given in any good elementary text-book.
- 13. English Composition and Rhetoric.—Correct spelling, capitalization, punctuation, paragraphing, idiom, and definition; the

elements of rhetoric. The candidate will be required to write two paragraphs of about one hundred fifty words each to test his ability to use the English language. This work counts for one unit.

- 14. English Literature.—(a) Each candidate is expected to have read certain assigned literary masterpieces, and will be subjected to such an examination as will determine whether or not he has done so. With a view to a large freedom of choice, the books provided for reading are arranged in the following groups, from which at least ten units are to be selected, two from each group. Each unit is here set off by semicolons.
- I. The Old Testament, comprising at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; the Iliad, with the omission, if desired, of Books XI, XIII, XIV, XV, XVII, XXI; the Odyssey, with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII, Vergil's Aeneid. The Iliad, the Odyssey, and the Aeneid should be read in English translations of recognized literary excellence.

For any unit of this group a unit from any other group may be substituted.

- II. Shakespeare's Merchant of Venice; Midsummer Night's Dream; As You Like It; Twelfth Night; Henry the Fifth; Julius Caesar.
- III. Defoe's Robinson Crusoe, Part I; Goldsmith's Vicar of Wakefield; either Scott's Ivanhoe or Scott's Quentin Durward; Hawthorne's House of Seven Gables; either Dickens's David Copperfield or Dickens's Tale of Two Cities; Thackeray's Henry Esmond; Mrs. Gaskell's Cranford; George Eliot's Silas Marner; Stevenson's Treasure Island.
- IV. Bunyan's Pilgrim's Progress, Part I; The Sir Roger de Coverley Papers in the Spectator; Franklin's Autobiography (condensed); Irving's Sketch Book; Macaulay's Essays on Lord Clive and Warren Hastings; Thackeray's English Humorists; selections from Lincoln, including the two Inaugurals, the Speeches in Independence Hall and at Gettysburg, the Last Public Address, and the Letter to Horace Greeley, along with a brief memoir or estimate; Parkman's Oregon Trail; either Thoreau's Walden or selections from Huxley's Lay Sermons; Stevenson's Inland Voyage and Travels with a Donkey.
- V. Palgrave's Golden Treasury (First Series), Books II and III, with especial attention to Dryden, Collins, Gray, Cowper,

Burns; Gray's Elegy in a Country Churchyard and Goldsmith's Deserted Village; Coleridge's Ancient Mariner and Lowell's Vision of Sir Launfal; Scott's Lady of the Lake; Byron's Childe Harold, Canto IV, and Prisoner of Chillon; Palgrave's Golden Treasury (First Series), Book IV, with especial attention to Wordsworth, Keats, and Shelley; Poe's Raven, Longfellow's Courtship of Miles Standish, Whittier's Snow Bound; Macaulay's Lays of Ancient Rome and Arnold's Sohrab and Rustum; Tennyson's Gareth and Lynette, Lancelot and Elaine, The Passing of Arthur; Browning's Cavalier Tunes, The Lost Leader, How They Brought the Good News from Ghent to Aix, Home Thoughts from Abroad, Home Thoughts from the Sea, Incident of the French Camp, Hervé Riel, Pheidippides, My Last Duchess, Up at a Villa—Down in the City.

(b) In addition to the foregoing the candidate will be required to present a careful, systematic study, with supplementary reading, of

the history of either English or American literature.

(c) The candidate will be examined on the form and substance of certain books in addition to those named under (a). For 1909, 1910, and 1911 the books will be selected from the list below. The examination will be of such a character as to require a minute study of each of the works named in order to pass it successfully. The list is:

Shakespeare's Macbeth; Milton's Comus, L'Allegro, and Il Penseroso; Burke's Speech on Conciliation with America, or Washington's Farewell Address and Webster's First Bunker Hill Oration; Macaulay's Life of Johnson, or Carlyle's Essay on Burns.

The work outlined in (a), (b), and (c) counts for two units.

- (d) The three units in English composition, rhetoric, and literature, as described above, are required for all students. A fourth unit may be obtained for one full year's additional work in the study of English and American authors.
- 15. French.—One year's work.—The candidate must have a thorough knowledge of elementary grammar and the irregular verbs; must be able to pronounce correctly, and to translate simple spoken French phrases. He must have read some 300 pages of easy prose; including one modern comedy, and must be able to translate ordinary French prose at sight.

Two years' work.—In addition to the foregoing, the candidate must show proficiency in advanced grammar, the essentials of syntax, and elementary composition. The reading of not less than 400 pages of standard authors, including two plays of Molière, is required.

Three years' work.—In addition to what has already been described, the candidate must have had further work in composition. He must further have read not less than 500 pages of standard authors, including Molière, La Fontaine, and Hugo. Some acquaintance with modern lyries is necessary.

Four years' work.—The fourth year should be a broadening and deepening of the work previously done. Careful attention should be given to the more intricate problems of syntax, and the work in composition should be of a high order, taking up the greater difficulties of grammar. Standard and classical authors should be read to the extent of some 700 pages.

- 16. Geology.—The student must show familiarity with the principles of dynamic and structural geology, and some acquaintance with the facts of historical geology as presented in Scott's Introduction to Geology, Brigham's Text-book of Geology, or an equivalent, together with at least an equal amount of time spent in laboratory and field work. The laboratory work should follow one or more of the lines indicated below, and note-books should be presented showing the character and amount of work done. (a) Studies of natural phenomena occurring in the neighborhood which illustrate the principles of dynamic geology. Each study should include a careful drawing of the object and a written description of the way in which it was produced. (b) Studies of well-marked types of crystalline, metamorphic, and sedimentary rocks which will enable the student to recognize each type and state clearly the conditions under which it was formed. (c) Studies of minerals of economic value, including the characteristics of each, its origin, and the uses to which it is put. (d) Studies of the types of soil occurring in the neighborhood, including the origin of each and the cause of differences in appearance and fertility.
- 17. Geometry.—(a) Plane Geometry. Special emphasis is placed on the ability to use propositions in the solution of original numerical exercises and of supplementary theorems.
- (b) Solid and Spherical Geometry. Applications to the solution of original exercises are emphasized.
- 18. German.—One year's work.—Elementary grammar. Besides the work in grammar, the student should read not less than 150 pages of easy narrative or descriptive prose.

Two years' work.—In addition to the work outlined under the one year's requirement, the pupil should know the syntax of cases, the uses of the subjunctive and infinitive, complex sentence structure,

and the uses of modal auxiliaries and of participial constructions. As an additional reading requirement, from 250 to 300 pages should be translated. Prose composition.

Three years' work.—The third year's study should aim to secure an easy reading knowledge of the language. Not less than 100 pages of standard prose, of the grade represented by Freytag, Dahn, or Keller, should be read; together with selections from the easier classic dramas. Schiller's Wilhelm Tell or Jungfrau von Orleans.

Four years' work.—The fourth year of study should be devoted to such works as Gothe's Iphigenie, Tasso, Hermann und Dorothea, or Schiller's die Braut von Messina; some consideration of the chief lyric poets; prose composition and some practice in theme writing.

19. GREEK.—To obtain one unit, the exercises in any of the beginning books, and one book of the Anabasis or its equivalent, must be offered. For two units, two additional books of the Anabasis and three of Homer, or their equivalents, must be presented, together with an amount of Greek prose composition equal to one exercise a week for one year. For three units the following is required: Three additional books of the Iliad, three of the Odyssey, and Books VI, VII, VIII of Herodotus, or an equivalent from other authors.

20. HISTORY.—One, two, or three units may be presented, to be chosen from the following list:

Ancient history to 800 A. D., one unit.

Medieval and modern history, one unit.

English history, one-half or one unit.

American history, one-half or one unit.

Examinations for entrance will be given in all these subjects. The examination for each unit is intended to cover one full year of high school work.

21. LATIN.—First year's work.—Such knowledge of inflections and syntax as is given in any good preparatory Latin book, together with the ability to read simple fables and stories.

Second year's work.—Four books of Cæsar's Gallic War, or its equivalent in Latin of equal difficulty. The ability to write simple Latin based on the text.

Third year's work.—Six orations of Cicero. The ability to write simple Latin based on the text. The simpler historical references and the fundamental facts of Latin syntax.

Fourth year's work.—Six books of Vergil, with history and mythology. The scansion of hexameter verse.

- 22. MANUAL TRAINING.—The requirement for one-half unit is the equivalent of 180 forty-minute periods in manual training following the syllabus prepared by the manual training section of the High School Conference.
- 23. Physics.—One year's high school work covering the elements of physical science as presented in the best of the current high school text-books of physics. Laboratory practice in elementary quantitative experiments should accompany the text-book work. The candidate's laboratory note-book will be considered as part of the examination.
- 24. Physical Geography.—The amount and character of the work required may be seen by referring to the texts of Gilbert and Brigham, or Davis; the recitations must be supplemented by at least an equal amount of time devoted to laboratory work. The laboratory exercises should follow one or more lines such as are indicated below. Each student should present a note-book showing what he has done.
- (a) Studies in mathematical geography in which map and scale only are used. These should embrace such topics as length of a degree in longitude in various latitudes; length and breadth of continents, etc., in degrees and miles; relative latitudes of places; distances between cities, etc., in degrees and miles; difference in length of parallels and meridians: problems in time: location of time belts, etc.
- (b) Studies of local topographic features which illustrate the various phases of stream work. Each study should include a drawing or topographic map of the object, and a full, clear description of the way in which it was formed.
- (c) Studies of glacial deposits as shown in terminal and ground moraines, kames, eskers, etc.; distribution of dark and light colored soils; occurrences of lakes, ponds, gravel beds, clay banks, and water-bearing strips of sand and gravel.
- (d) Studies of stream work as shown in the topographical sheets which may be obtained from the United States Geological Survey at a nominal cost.
- (e) Studies of the form, size, direction and rate of movement of high and low barometer areas, and the relation of these to direction of wind, character of cloud, distribution of heat, and amount of moisture in the air, as shown in the daily weather maps. Later these studies should lead to the making of weather maps from the data furnished by the daily papers, and to local prediction of weather changes based on the student's own observation.

- (f) Studies of the climate of various countries compared with our own, the necessary data being derived from such topographic, rainfall, wind, current, and temperature maps as are found in Sydow-Wagner's or Longman's atlases.
- 25. Physiology.—For one-half unit are required the anatomy, histology, and physiology of the human body and the essentials of hygiene, taught with the aid of charts and models to the extent shown in Martin's Human Body (Briefer Course). For more than one-half unit, the course must include practical laboratory work.
- 26. Spanish.—One year's work.—Elementary grammar, including thorough drill in the irregular verbs. Careful training in pronunciation, and translation of simple Spanish when spoken. Some 200 or 250 pages of easy prose should be read. Simple composition and dictation.

Two years' work.—In addition to the foregoing, about 350 pages of modern prose should be read. Elementary syntax. Dictation, composition, and translation of spoken Spanish continued.

27. ZOOLOGY.—The instruction must include laboratory work equivalent to four periods a week for a half-year, besides the time required for text-book and recitation work. Note-books and drawings must be presented to show the character of work done and the types of animals studied. The drawings are to be made from the objects themselves, not copied from illustrations, and the notes are to be a record of the student's own observation of the animals examined. The amount of equipment and the character of the surroundings must, of course, determine the nature of the work done and the kind of animals studied; but in any case the student should have at least a fairly accurate knowledge of the external anatomy of each of eight or ten animals distributed among several of the larger divisions of the animal kingdom, and should know something of their life histories and of their more obvious adaptations to environment. It is recommended that special attention be given to such facts as can be gained from a careful study of the living animal. The names of the largest divisions of the animal kingdom, with their most important distinguishing characters, and with illustrative examples selected, when practicable, from familiar forms, ought also to be known.

### (a) ADMISSION BY EXAMINATION

Each candidate for admission by examination is required to pass examinations on—

- I. The subjects prescribed by all the colleges (List A, p. 83).
- II. The subjects prescribed in addition by the individual college he wishes to enter (see page 84).
- III. A sufficient number of electives to make up the required total of 15 units (see Lists B and C, pages 84, 85).

The entrance examinations cover the subjects as outlined on pages 86-94. They are given at the University in accordance with the program given below.

#### PERMITS

Permits for the examinations must be secured in advance from the Registrar. No one will be admitted to the examination hall without a permit.

### Program of Entrance Examinations, 1911<sup>1</sup> September 13, 14, 15, 16

Chemistry, 1 unit	Sept.	13,	9:00	a.m.
Geology, 1/2 unit, or 1 unit	Sept.	13,	9:00	a.m.
Astronomy, 1/2 unit	Sept.	13,	11:00	a.m.
History, 1, 2, or 3 units	Sept.	13,	1:00	a.m.
Physical geography, 1/2 unit, or 1 unitWed.,	Sept.	13,	3:30	p.m.
English literature, 2 unitsThurs.,	Sept.	14,	8:00	a.m.
English composition, 1 unitThurs.,	Sept.	14,	10:30	a.m.
Latin, 1st unit, or 2nd unit, or bothThurs.,	Sept.	14,	1:00	p.m.
Physics, 1 unitThurs.,	Sept.	14,	3:30	p.m.
Algebra, 1½ unitsFri.,	Sept.	15,	8:00	a.m.
Civies, 1/2 unit, or 1 unitFri.,	Sept.	15,	10:30	a.m.
Economics, ½ unitFri.,	Sept.	15,	10:30	a.m.
Geometry, plane, 1 unitFri.,	Sept.	15,	1:00	p.m.
Geometry, solid and spherical, 1/2 unitFri.,	Sept.	15,	3:30	p.m.
Physiology, 1/2 unit, or 1 unitFri.,	Sept.	15,	3:30	p.m.
German, 1st unit, or 2nd unit, or bothSat.,	Sept.	16,	8:00	a.m.
German, 3rd unit, or 4th unit, or bothSat.,	Sept.	16,	10:30	a.m.
French, 1st unit, or 2nd unit, or bothSat.,	Sept.	16,	8:00	a.m.
French, 3rd unit, or 4th unit, or bothSat.,	Sept.	16,	10:30	a.m.
Spanish, 1st unit, or 2nd unit, or bothSat.,	Sept.	16,	8:00	a.m.

<sup>&</sup>lt;sup>1</sup>The examinations in 1912 will probably be held September 12-15.

Business law, ½ unitSat.,	Sept.	16,	8:00	a.m.
Commercial geography, 1/2 unitSat.,	Sept.	16,	10:30	a.m.
Bookkeeping, 1 unitSat.,	Sept.	16,	1:00	p.m.
Latin, 3rd unit, or 4th unit, or bothSat.,	Sept.	16,	1:00 ]	p.m.
Botany, 1/2 unit, or 1 unitSat.,	Sept.	16,	1:00	p.m.
Zoology, ½ unit, or 1 unitSat.,	Sept.	16,	3:30	p.m.

The time for examinations in agriculture, domestic science, freehand drawing, Greek, and manual training will be arranged with candidates.

# (b) ADMISSION BY CERTIFICATE FROM AN ACCREDITED PREPARATORY OR HIGH SCHOOL

One wishing to enter the University from an accredited school must furnish the Registrar an official certificate of his preparatory work. If the certificate meets in full the requirements for admission to the college or school in which the course which the candidate wishes to pursue is given, he will be granted a permit to enter.

If the certificate is deficient, either because the school is not fully accredited, or because the candidate has not taken prescribed and other acceptable work in sufficient amount, he may be admitted as a "conditioned" student, provided the deficiencies do not exceed two units and are not in work which should precede the prescribed courses of the first semester. The conditioned student must clear off all conditions before registering the second year.

Blank certificates and applications for admission may be had of the Registrar. They should be obtained early, and should be filled out and sent in to him for approval before the date of registration.

Following is a list of the schools accredited by the University.

In addition to the schools named in this list, all schools (in states other than Illinois) that are accredited by the North Central Association of Colleges and Secondary Schools are accredited by this University.

# LIST OF ACCREDITED SCHOOLS

[Correct to December 1, 1910]

The following high schools, having all the prescribed units, and enough others to make up the required total of 15 units, are in the list of fully accredited schools.

Not all these schools, however, are accredited for the same amount of work, nor all for the same subjects. A student presenting a certificate from any one of these schools will be given entrance credit for all the subjects named therein for which the said school is specifically accredited, as shown in the certificate of its accredited relation issued by the University.

The High School Visitor of the University inspects high schools not previously accredited upon request, if the request is accompanied by a report of the school which shows that it merits such inspection. The University accredits all work which is thus found to be sufficiently well done. For further particulars address H. A. Hollister, High School Visitor, in care of the University of Illinois.

SUPERINTENDENT

4 O D.-41.-

Abingdon	A. C. Butter
Aledo.	F. N. Taylor
Alton	R. A. Haight
Amboy	George M. Pett
Anna	F. C. Prowdley
Arcola	P. M. Hoke
Ashland	Jas G. Norris
Assumption Twp.	Jas G. Moills
Atlanta	T W Proming
	J. W. Browning
Auburn	J. E. Demmer
Augusta	C. B. Whitehou
Augustana College Acad.	(Rock Island)
Aurora East	C. M. Bardwell
Aurora West	C. E. Douglas
Barry	C. E. Kuechler
Batavla East	H. A. Bone
Batavia West	n. A. Boue
Beardstown	H. G. Russell
Belleville	George H. Busi
Bellflower Twp.	
Belvidere North	E. D. Merriman
Belyldere South	C. II, LeVitt
Bement	H. A. Paine
Benton Twp.	11. 11. 1 time
Biggsville Twp.	
Bloomington	J. K. Stableton
Bloom Twp. (Chicago He	eignus)

SCHOOL.

PRINCIPAL
W. B. Rose
Ida H. Way
B. C. Richardson
Nita Robinson

Imogene Shade Fannie E. Gillan Oren A. Barr Margaret M. Sullivan Zita E. Jackson A. E. Decker G. A. Andreen, Pres. M. O. Roark

Frances Lamphere §F. E. Ballard ÇClara L. Buswell Mrs. H. G. Russell H. W. Brua P. M. Watson Flora Fellows R. W. Noel Everett Williams O. C. Upchurch A. E. Robinson William Wallis E. L. Bover

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PRINCIPAL

SUPERINTENDENT J. E. Lemon T. C. Burgess, Director Miss L. L. Knowles J. Earl Midkiff SCHOOL J. E. Lemon Blue Island Bradley Poly. Inst. (Peoria) R. C. Hiett T. C. Clendenen Bushnell Lena P. Roath Ira P. Rinker Margaret Hubbard W. E. Britton Cairo S. S. Simpson G. W. Gayler H. Ambrose Perrin M. N. Todd Harry Blue Cambridge Camp Point Canton Carlinville Harry Diehl
J. A. Johnston
H. D. Hoover
J. Frances Dodge
W. R. Spurrier
Mata Roman
Lettic Switzer Carlyle Edwin A. Doolittle David H. Wells Carmi Carrollton Carthage Carthage Col. Academy W. D. Madden Catlin Centralia Twp. George N. Cade W. W. Earnest DeWitt Elwood Lottie Switzer Lester R. McCarty Lella M. Brown Maude Fairfield Cerro Gordo Champaign Charleston William Baylor A. B. Hiett J. M. Brewer Mrs. Ella Flagg Young Chatsworth A. C. Lasswell Chenoa Chester Geo. H. Rockwood Chas. I. Parker Avon S. Hall W. J. Bartholf Chicago Austin Bowen W. J. Bartholf
Thomas G. Hill
James E. Armstrong
Hiram E. Loomis
E. Buck
Louis J. Block
Albert A. Sabin
Spencer R. Smith
Walter F. Slocum
Franklin P. Fisk
Oliver S. Westcott Calumet R. T. Crane (M. T. H.) Curtis Englewood Hyde Park Lake Lake View McKinley Marshall Medill Wendell Phillips Schurz Tuley J. L. Robertson C. S. Montooth J. W. Morgan H. Edmunds O. P. Bostwick O. P. Bostwick C. H. Dorris Edwin C. Dodson H. A. Dean F. O. Pennington F. M. Cockrell L. H. Griffith Frank L. Smart H. B. Wilson d Park) Robert A. Waller Helen E. Booker Chillicothe Chrisman Clayton Clinton Clinton, Iowa Colfax Collinsville Twp. Crystal Lake Cuba Dallas City Danville Danville Davenport, Iowa Deerfield Twp. (Highland Park)
DeKalb Twp. Edgar F. Nichols W. R. Snyder H. V. Baldwin G. C. Butler Delayan Dixon Dixon North Downer's Grove Drury Academy (Aledo) E. C. Fisher Dundee DuQuoin Twp. Homer B. Dickey H. L. Kessler J. E. Miller Dwight Earlville

Heywood Coffield

Robert I. White

East St. Louis

Edwardsville Eldorado Twp.

Elgin

	21cerealica Senoo	ols 99
SCHOOL	Supposition	PRINCIPAL George N. Sleight George N. Sleight Bertha L. Crilly Anna J. Miller H. U. Smith Jessie McNabb Mae K. Steele Danlel Irion. Director W. F. Beardsley H. Alene Wolfe W. A. West Jeanette L. Worthen Mabel P. Cowdin Frances Laura Hughes St. John Witton Louise Hobart Flora J. Cooke L. A. Fulwider Elora J. Cooke L. A. Fulwider Hobart Flora J. Cooke L. A. Fulwider Hobart Flora J. Cooke L. A. Fulwider H. B. Fisher Margery E. Wilder Adda M. White Mase H. Durland Margaret Nicholson Mabel Miller Mabel Cooper H. H. Frost, Pres. H. D. Waggoner Alice Cash Lillian Showalter Mamie E. Graff Leona McAnnity Harr Taylor Mrs. S. Hendrickson Mrs. Hendrickson
Elgin Academy	SUPERINTENDENT	PRINCIPAL
Elizabeth	E. L. Rost	George N. Sleight
Elisworth (Naperville)	F. W. Cole	Bertha L. Crilly
Elmmood	F. R. Ritzman	II II Smith
El Paso	T. S. Henry	Jessie McNahh
Evangelical Proseminar	(Elmhurot)	Mae K. Steele
Evanstou Twp.	(Eliminaist)	Daniel Irion, Director
Fairbury	Claude C. Whiteman	W. F. Beardsley
Furmer City	James A. Porter	W A Wort
Farmington	C. C. Covey	Jeanette L. Worthon
Ferry Hall (Lake Fore	A. J. Beatty	Mabel P. Cowdln
Flora	N. N. Stevenson	Frances Laura Hughes
Forrest	B. R. Morris	St. John Witton
Francis W. Parker Scho	ool (Chicago)	Elora I Cash
Fulton	S. E. Raines	L. A Fulwidon
Galena	Harry B. Price	Eunice R. Blackburn
Galesburg	W. I. Stoole	E. G. Mason
Galva	F. U. White	A. W. Willis
Concre Twp.		Anne E. Edwards
Genoa	F. D. McKittrick	Margery E Wildon
Georgetown	B. F. Kepner	Adda M. White
Gibson City	C. C. Condit	Miss A. H. Durland
Gilman	J. C. Reeder	Margaret Nicholson
Grand Dugint, G	W. F. Grotts	Mabel Miller
Granite City Sem. (On	arga)	H. H. Frost Prog
Greenup	L. P. Frohardt	H. D. Waggoner
Greenview	H. I. Wolker	Alice Cash
Greenville	C. N. Peak	Lillian Showalter
Harrishna m	H. M. Billingslev	Leone Moderate
Harvard 1 wp.	D	Harry Taylor
Havana	B. L. Pilcher	W. E. Hendrickson
Henry	Willard F King	Mrs. S. E. Pierce
Heyworth	O. D. Rider	Philippine M. Pfaff
Hillshore	C. D. Dietz	II C Zioc
Hinsdale	H. L. Cox	Harry J Beckemoren
Hittle Twp. (Armington	n. E. Giles	H. E. Giles
Hoopeston	S. K. McDowell	Lloyd E. Engel
Ill Waman's G.	J. H. Trinkle	Florence Nest
Jacksonville Col. Acad. (	Jačksonville)	Jos. R Harkon Duan
Jennings Seminary (Aur	W. A. Furr	R. O. Stoons
Jerseyville	Joshua Pika	Bertha A. Barber
John Swaney School (Mc	Nabb)	E. B. Shafer
J. Starling Moutes m.		J Stanlar Drawn
Kankakee Morton Twp.	(Clyde)	II. V. Church
Kansas	Carl W. Da-	C. H. Kingman
Keithsburg	E. A. Huff	Florence Miesse
Kenwood Institute (Chica	go)	J. E. Jeffery
Knoxville	R. G. Jones	O. A. Rawling
Lallarpe	George N. Bradley	Sylvia Smith
Lake Forest Acad.	r. w. Everitt	C. W. Lantz
Lanark	O. W. Hoffman	W. M. Lewis
Lawrenceville Twp. (LaSal	le).	T J McCommon
Leftoy	II II III .	E. V. Tubbs
Lewistown	Marion Narkpatrick	Agnes Bullock
Lexington	J. G. Moore	Mary Weatherly
Libertyville	C. R. Pugh	Rosamond Tower

SCHOOL Lincoln Litchfield Lockport Twp. Lovington Twp. Lyons Twp. (LaGrange) McHenry McLeansboro Macomb Maine Twp. (DesPlaines) Marengo Marion Maroa Marseilles Marshall Twp. Martinsville Mason City Mattoon Mendota Metropolis Minonk Moline Momence Monmouth Monticello Morgan Park Twp. Morgan Park Acad. Morris Morton Twp.
Mt. Carmel
Mt. Sterling
Mt. Vernon Twp. Murphysboro Twp.

Murphysboro Twp.
Nashville
Neoga Twp.
Newman Twp.
Newman Twp.
Newton
New Trier Twp. (Kenilworth)
Nokomis
Northwestern Mil. Acad. (Highland Park)
Oakland
Oak Park & River Forest Twp. (Oak Park)
Oblong
Odell
W. M. Vaughan
Olney
Ohnarga
S. E. LeMarr
Oregon
Ottawa Twp.
Palestine
Pana Twp.

Newton

C. O. DuBois
Antoinette Girhard
H. E. Brown
Newton
C. U. M. Co.
H. P. Davidson
Vera Turell
J. A. Stevenson
Olitile R. Paisley
B. Y. Alvis
Cleo Jennings

W. D. M. Vaughan
Lille R. Paisley
B. Y. Alvis
Cleo Jennings Pana Twp. Paris PawPaw Paxton Pekin Peoria Petersburg Pittsfield Plainfield Plano Polo Poutiac Twp. Princeton Twp.

SUPERINTENDENT

Edwin D. Martin

W. S. Booth L. M. Test

O. H. Blossom
L. H. Darling
M. G. Burton
W. L. German

SUPERINTENDENT
Anthony Middleton
A. S. Anderson
E. W. Powers
A. Edgar Nye
W. C. Fairweather
James C. Burns
J. A. Alexander
Albert Reep
E. G. Lentz
J. McLeod
E. A. Collins
E. L. McCabe
Arthur C. Hall
G. P. Randle
E. H. Murray
M. N. McCartney
T. A. Gallaher
B. B. Jackson
B. A. Wilson
Ada Anderson
J. F. Wilson
Ada Anderson
J. F. Wilson
Ada Anderson
C. E. Joiner
B. D. Remy
J. Holl
Mary Findlay
A. W. Gross
J. H. Heil
Harry D. Abells
L. E. Simrall
T. L. Cook
Harriett Berninger
Margaret MacGregor PRINCIPAL Harriett Berninger Margaret MacGregor J. M. Dickson

F. G. Taylor

H. B. Urban

E. B. Brooks
A. A. Franzke
G. J. Balnum
J. J. Crosby
Gerard T. Smith
William Hawkes
O. H. Blossom
L. H. Darling
M. G. Burton
W. L. German
W. L. German
Carl B. Moore

W. F. Mozier
J. M. Watters
W. F. Andrews
Bertha A. Miller
J. W. Holderman
F. C. Turner
Wm. F. Shirley
A. W. Beasley
Henry S. Stice
Nellie A. Moore
Evelyn B. Winbolt
R. E. Locke
Mary C. Strickler
Arthur Verner
H. S. Magill, Jr.
Helen C. Jacobson

	SCHOOL	~
	Prophetstown	SUPERINTENDENT
	Proviso Twp. (Maywo	G. V. Clum
	Quincy	
	Rantoul	E. G. Bauman E. H. Miller
	Riverside	A. F. Ames
	Robinson Twp.	
	Rochelle Rock Falls	L. A. Mahoney
	Rockford	E. O. Phares
	Rock Island	P. R. Walker
	Roodhouse .	L. A. Mahoney E. O. Phares P. R. Walker H. B. Hayden Harvey F. White
	Roseville Two.	marvey F. White
	Rossville	I. A. Smothers
	Rushville	Charles E. Knapp
	St. Mary's Agad (Tallat	Charles E. Knapp H. W. Monical
	St. Charles St. Mary's Acad. (Joliet Salem	
	Sandwich	M. A. Thrasher W. W. Woodbury
	Savannah Two	
	Saybrook	L. I. Fulwiler J. H. Martin A. F. Lyle F. L. Holch
	Sheffield Shelbyville	J. H. Martin
	Sheldon	A. F. Lyle
	Sidell	F. L. Holch
	Southern Collegisto Inst.	Sherman Cass (Albion)
		S E Recabon
	Springfield Staunton	S. E. Reecher J. H. Collins Wm. E. Eccles
	Starling Town	Wm. E. Eccles
	Sterling Twp. Stockton	
	Stonington	G. W. Menzimer G. E. Lowry
	Streator Two.	G. E. Lowry
	Sullivan	O. B. Lowe
	Sycamore	K. D. Waldo
	Taylorville Twp. Terre Haute, Ind.	
		J. M. Tilley
		0 0 000
- 1	lolono	C. F. Miller A. E. Hubbard
- 3	Tuscola	A. E. Hubbard Lewis Hoover
Ť	Tpper Alton Jrbana Jrsuline Acad. (Springfiel andalia	Denis Hoover
ì	Tranline Acad (Cont. C.	A. P. Johnson
1	andalia (Springhel	d)
1	ermilion Acad. (Vermilio Tilla de Chantal (Rock Is Tirden	D. B. Fager
1	illa de Chantal (Rock Is	dand)
T.	irden	A. M. Silloway A. M. Santee O. E. Taylor E. E. Webster L. W. Haviland
77	irginia arren	A. M. Santee
Ţ	ashington	O. E. Taylor
- 11	atseka	E. E. Webster
- 31	aukegan Twn	L. W. Haviland
11	Chicago	Lewis A. Reisner
11.	estern Wil A. Acad. (Ma	comb)
W	enona . Chicago . Ill. St. Nor. Acad. (Ma estern Mil. Acad. (Upper estfield College Academy heaton	Alton)
11.	heaton College Academy	7 D D
11	hite Hall	Jacob P. Sobola
11.	hlting. Ind.	John C. Hell
**	ilmington oodstock	L. C. Flanegin
W	VOming	E. C. Thomas
Yo	yoming orkville	J. B. Russell Jacob P. Scheid John C. Hall L. C. Flanegin E. C. Thomas C. H. Marcy H. F. Schell
		H. F. Schell

PRINCIPAL W. F. Stewart J. Porter Adams C. R. Maxwell Florence White Florence White
T. II. Ziegler
J. O. Marberry
T. R. Johnston
E. L. Davis
C. P. Briggs
Alden J. Burton
Adelaide Dressel
A. C. Paga A. C. Booz A. C. Booz George R. Spraker Nina M. Weinberg Eva H. Gibbs M. M. Victorine J. F. Hickman Maud Webster Floyd T. Goodier G. F. Moore J. H. Martin Donald DuShane Lewis Hiner Charlette Crew Charlotte Crew F. B. Hines, Pres. F. C. Scott
F. D. Thomson
C. E. Rutherford
E. T. Austin Margaret W. Price Helen B. Schmitz Walter E. Ervin Essie Chamberlain Essie Chamberiain
Evangeline Shattuck
J. E. Wooters
C. J. Waits
Lewis W. Smith
C. F. Miller
Lucy V. Hoff
Carson H. Beane

M. L. Flaningam Mother Ursula
Orville V. Schaeffer
Arthur C. Bailey
Mother F. Borgia
Catherine A. Kelley Catherine A. Kel Laura Mason Olivet Ruser B. F. Shirer Mary J. Laycock W. J. Stebbins Calvin George Edna V. Schmidt Alfred Bayliss A. M. Jackson B. F. Daugherty Ellen M. Gregg Isabel Anderson W. W. Holliday Bertha M. Eldred W. E. Evans Sadie Nelson V. Blanche Graha V. Blanche Graham

Following are partially accredited schools:

SCHOOL SUPERINTENDENT PRINCIPAL Astoria Atwood Oswell G. Treadway Blanche Sutton Bowen Mabel F. Gardiner Golden Berryman Forreston C. E. Lowman L. W. Ragland Greenfield Griggsville A. F. Butters L. M. Carpenter Louis Baer Lois Miles Illiopolis Sue L. Wilson Sarah Megowen Madlson H. W. McCulloch
L. B. Coggeshall
Lucian F. Sennett
Dr. C. W. Leffingwell
Irene Phillips
A. G. Heitman Milford J. H. Brewer L. B. Coggeshall Ridgefarm St. Alban's School (Knoxville) St. Mary's School (Knoxville) H. A. Ritcher James E. Raibourn J. B. Hendricks Washburn Waterloo Winchester Lillian Gray

# (c) ADMISSION BY TRANSFER OF ENTRANCE CREDITS FROM OTHER COLLEGES OR UNIVERSITIES

A person who has been admitted to another college or university of recognized standing will be admitted to this University upon presenting a certificate of honorable dismissal from the institution from which he comes and an official statement of the subjects upon which he was admitted to such institution, provided it appears that the subjects are those required here for admission by examination, or real equivalents. The candidate should submit such papers to the Registrar before the time of entrance.

#### ADMISSION TO ADVANCED STANDING

After matriculation, an applicant may secure advanced standing either by examination or by transfer of credits from another college or university.

- 1. By examination.—Advanced standing is granted only by examination, unless the applicant is from an approved school. In such case, credit may be obtained as explained in the next paragraph.
- 2. By transfer of credits.—Credits of another college or university, or from a fully accredited high school (in excess of entrance requirements), may be accepted for advanced standing. An applicant for such credit must present a certified record of work done in the institution from which he comes, and, except in cases of transfer from high schools, must also present a certificate of honorable dismissal.

#### ADMISSION AS SPECIAL STUDENTS

Persons over twenty-one years of age, not candidates for a degree, may be admitted as special students, on terms prescribed by the individual colleges. In every case they must secure (1) the recommendation of the professor whose work they wish to take, and (2) the approval of the dean of the college concerned. They must give evidence that they possess the requisite information and ability to pursue profitably, as special students, their chosen subjects.

The College of Literature and Arts requires every person desiring admission as a special student to present a written application, accompanied by official certificates, indicating the character and extent of his preparatory work, and showing honorable dismissal from the school last attended. In order that action may be taken on such applications before registration they should be presented at least one week before the beginning of the semester.

The College of Engineering requires that applicants for admission as special students shall satisfy the entrance requirements in mathematics and English (one and one-half years of algebra, one year of plane geometry, one-half year of solid geometry, one year of English composition, and two years of English literature).

The College of Agriculture will receive non-matriculants eighteen years old or over, provided that if deficient in English as measured by the requirements for matriculation, they shall arrange to carry English as one subject until that deficiency is made good; and provided further, in the case of men, that they shall have had at least two years of experience in practical agriculture.

A special student is not matriculated and must pay a tuition fee of \$7.50 a semester in addition to the regular incidental fee of \$12.00.

No one may enroll as a special student in any college of the University for more than two years, except by special permission, application for which must be made through the dean of the college.

A person registered as a special student in one college and desiring to take a course in another college of the University must obtain the approval of the dean of the latter college.

# GRADUATION—THE BACHELORS' DEGREES

A bachelor's degree is conferred upon any student who satisfactorily completes the course of study described under one of the various colleges and schools, doing either the first three years, or the last year, of his work in residence at the University.

If the student is in residence at the University for one year only, that year's work must be taken in the college from which the degree is expected. No person will be recommended for a degree by the faculty of any college in the University unless he has been a regularly registered student in that college for at least one year.

A candidate for a bachelor's degree must pass in the subjects marked prescribed in his chosen course, and must conform to the directions given in connection with that course in regard to electives. In the Colleges of Literature and Arts, of Science, and of Agriculture, credit for 130 hours is required for graduation. In the College of Engineering, in the College of Law, and in the Schools of Music and Library Science the candidate must complete the course of study as laid down.

The number of hours required includes, for men, five in military drill and tactics and two in physical training; and for women, three in physical training. Men excused from the military requirements, and women who do not take courses in physical training, must elect instead an equivalent number of hours in other subjects.

In all cases in which a thesis is required,\* the subject must be announced not later than the first Monday in November, and the completed thesis must be submitted to the dean of the proper college by June 1. The work must be done under the direction of the professor in whose department the subject belongs, and must be in the line of the course of study for which a degree is expected. The thesis must be presented upon regulation paper, and is deposited in the library of the University.

<sup>\*</sup>See requirements for graduation in the various colleges.

A student who has already received one bachelor's degree may receive a second bachelor's degree, provided that all specified requirements for both degrees be fully met, and provided also that the course offered for the second degree include at least 30 semester hours not counted for the first degree.

1. The degree of Bachelor of Arts is conferred on those who complete a course in the College of Literature and Arts, or certain courses in the College of Science.

2. The degree of Bachelor of Science is conferred on those who complete a course in the College of Engineering or in the College of Agriculture. This degree is conferred on a graduate of the College of Science who completes a course in ceramics, and may be conferred on graduates from other courses in this College on recommendation of the faculty, as announced on pp. 151 ff.

3. The degree of Bachelor of Laws is conferred on those who complete the course in the College of Law.

4. The degree of Doctor of Medicine is conferred on those who complete the course in the College of Medicine.

5. The degree of Bachelor of Library Science is conferred on those who complete the course in the School of Library Science.

6. The degree of Bachelor of Music is conferred on those who complete one of the courses in the School of Music.

7. The degree of Graduate in Pharmacy, or of Pharmaceutical Chemist, is conferred on those who complete the shorter and the longer courses, respectively, in the School of Pharmacy.

8. The degree of Doctor of Dental Surgery, is conferred on those who complete the course in the College of Dentistry.

# HONORS AND COMPETITIONS

#### UNIVERSITY HONORS

The University gives public official recognition to such students as attain a high grade of scholarship by the following system of honors:

Preliminary Honors are assigned on the completion of the sophomore year. The number of persons to whom honors are awarded may not exceed one-tenth of the membership of the sophomore class. The basis of assignment is the scholarship of the student during the freshman and sophomore years. A condition or a failure disqualifies a student for receiving these honors. Preliminary Honors afford an opportunity for sophomores to secure recognition for high scholarship without waiting for graduation.

Final Honors are assigned on graduation. The basis for the assignment is the scholarship of the student during the junior and senior years. Not more than one-tenth of the senior class may receive such honors. Final Honors are given to seniors in recognition of high scholarship, the terms being designed especially to favor students whose preparatory education has been so imperfect as to prevent them from receiving preliminary honors. A condition or a failure received in the junior or the senior year disqualifies a student for receiving Final Honors.

Special Honors are awarded at the close of the senior year. No student may receive such honors who has not completed, before the beginning of his senior year, at least twenty hours' work in the subject, or group of allied subjects, in which the honors are proposed; he must complete thirty hours' work in the same subject, or group of allied subjects, by the end of his senior year, must do such other work as the professor in charge may assign, and must prepare an acceptable thesis. No student is eligible for special honors who, during the period in which he is a candidate for the same, has received a grade of less than eighty-five per cent in any subject. Special honors are planned for especially brilliant students who prefer to

concentrate their efforts upon a special course. A student may be a recipient of both final and special honors.

The names of all students receiving honors appear in the University catalog.

#### MILITARY CONTESTS AND PRIZES

Bronze medals typical of the University and its Military Department are awarded by the University to the members of the infantry company and artillery and signal detachments which shall score the greatest number of points at the annual competitive drill, held at some time between May 15 and May 31. The members of the company rifle team making the highest score at gallery target practice are also awarded medals. The medals so awarded become the permanent property of the recipients. A complete roster of the winning organizations is published in the University register for the following year.

#### THE HAZELTON PRIZE MEDAL

Captain W. C. Hazelton provided in 1890 a medal, which is awarded, at a competitive drill held at some time between May 15 and May 31, to the best drilled student. Each competitor must have been in attendance at the University at least sixteen weeks of the current college year; must not have had more than four unexcused absences from drill; and must present himself for competition in full uniform.

The award is made for excellence in:

- 1. Erectness of carriage, military appearance, and neatness
- 2. Execution of the school of the soldier, without arms
- 3. Manual of arms, with and without numbers

The name of the successful competitor is published in the University register for the following year. He is given a certificate setting forth the facts, and may wear the medal until the fifteenth day of the May following, when he must return it for the next competition.

#### UNIVERSITY GOLD MEDAL

The Board of Trustees provides annually a gold medal which is to be awarded, at the annual competitive drill held near the close of the year, to the best drilled student. Each student must have matriculated in the University and must have completed one semester's work in Military 1 with a grade of not less than 90, and three semesters' work in Military 2 with a grade of not less than 95; and he must have an average standing of not less than 85 per cent in all of his other studies for the preceding semester, which standing shall be determined by the dean of his college. The name of the winner is published in the University register for the following year. The reward is made for excellence in the same details as in the Hazelton contest.

#### DEBATING AND ORATORY

The University engages yearly in four intercollegiate debates, the teams for which are chosen in a series of competitive preliminaries to which all students are eligible. Through the generosity of Hon. William B. McKinley, a gold watch-fob is presented to every speaker who represents the University, either in debate or in oratory.

THE CENTRAL DEBATING CIRCUIT OF AMERICA is an association formed by the universities of Illinois, Iowa, Minnesota, Nebraska, and Wisconsin. It holds a debate at each university on the Friday evening following the Thanksgiving recess.

THE STATE UNIVERSITY DEBATING LEAGUE consists of the state universities of Illinois, Indiana, and Ohio. Under its auspices three debates are held upon the second Friday in March, each university sending out an affirmative and a negative team.

THE NORTHERN ORATORICAL LEAGUE, consisting of Northwestern University, Oberlin College, and the state universities of Illinois, Iowa, Michigan, Minnesota, and Wisconsin, holds an annual contest on the first Friday evening in May. The contest for 1911 will be held at the University of Michigan. The winner receives the Lowden testimonial of one hundred dollars, and the speaker awarded second place fifty dollars. The Illinois representative is selected in competitive contests open to all undergraduates.

THE INTERCOLLEGIATE PEACE ASSOCIATION holds an annual state and inter-state oratorical contest to which this University is eligible. Orations must be upon some phase of the peace question. Cash prizes are offered in the state and inter-state contests.

A Freshman-Sophomore Debate and an Inter-Society Declamation Contest are held yearly.

Delta Sigma Rho is an honorary fraternity whose membership is confined to University debaters and orators. Chapters have been formed in many of the colleges and universities of the East and Middle West.

The names of the students who represented the University in debate and oratory in 1909-10 are given on page 614.

#### INTERSCHOLASTIC ORATORICAL PRIZE

A medal of the value of twenty dollars, and two of the value of ten dollars each, are offered annually by the University to the high schools of the state for the best oration delivered in a competitive contest between their representatives. This contest takes place in the spring at the time of the interscholastic athletic meet.

#### THE BRYAN PRIZE

In 1898 Mr. William Jennings Bryan gave to the University two hundred and fifty dollars. From the interest of this sum a prize of twenty-five dollars is offered biennially for the best essay on the science of government. The contest is open to all matriculated undergraduate students. The essays may not be less than three thousand, nor more than six thousand, words in length, and must be left at the President's office not later than the second Wednesday in May. The prize was offered for the first time in 1901. It will be offered next in 1911.

# ASSOCIATIONS, SOCIETIES, AND CLUBS

#### GENERAL ORGANIZATIONS

#### University of Illinois Union

The University of Illinois Union is an association of the men of the University, having for its general object the promotion of college spirit and good fellowship, and as a special end the erection and maintenance of a club house open to all University men. All male students are eligible to active membership in the Union; alumni and members of the faculty may become associate members. The Union elects annually a Student Council, consisting of eight seniors and seven juniors, which takes charge of certain student activities.

#### THE WOMAN'S LEAGUE

The Woman's League was organized to further the spirit of unity among the women of the University and to be a medium by which the social standards of the University can be made and kept high. The administrative power is vested in an Advisory Board and an Executive Committee composed of representatives from the various women's organizations. Every woman in the University is, by virtue of her registration, a member of the League. The League manages a loan fund, supports a room in the Burnham Hospital, and provides the magazines for the Woman's Building.

#### HOSPITAL ASSOCIATION

The Hospital Association is an organization of students to provide a fund for hospital care in case of sickness. The members of the Association pay a fee of fifty cents each semester, and the fund thus raised is used to pay the hospital expenses of members who may need such care. The fund is under the control of a committee of the Council. During the past ten years the association has rendered valuable aid to a considerable number of members. Students are advised to join the association.

#### LITERARY SOCIETIES

The ADELPHIC, IONIAN, and PHILOMATHEAN societies for men, and the Alethenai, Athenean, and Illiola for women, meet weekly, on Fridays, throughout term time.

#### THE CHRISTIAN ASSOCIATIONS

In 1909-10 seven hundred five men were enrolled in the Young Men's, and three hundred ninety women in the Young Women's Association. Each association employs a general secretary for full time. Both are affiliated with the World's Student Christian Federation.

The Association Houses furnish free for the use of all students a reading room and library, parlors, piano, magazines and papers, correspondence tables, telephones, and other conveniences. The young Men's Christian Association building contains also lounging and game rooms, bowling alleys, and dormitories to accommodate about eighty persons.

Religious meetings for men are held on Sunday afternoons; for women on Thursday afternoons; and for both men and women on Monday evenings. There are frequent meetings for the promotion of social intercourse and good fellowship. Courses in systematic Bible study and in modern missions are offered. Within the year approximately eight hundred fifty men and six hundred fifty women completed one or both of these courses. A most helpful feature of the work is that in the interest of new students at the opening of the college year. Desirable rooms and boarding places are found and posted for reference at the Association Houses. Representatives of the Associations meet the trains, assist students in finding satisfactory locations, and endeavor to make them feel at home. The employment bureau helps many to find work.

A copy of the Students' Hand-Book, giving information about Urbana and Champaign, the University, and the various college organizations and activities, will be sent free to prospective students.

For this Hand-Book, or for further information, address the General Secretary of either Association.

#### THE KOMENIAN SOCIETY

The Komenian Society was organized in 1908 by the Bohemian students of the University. Its purpose is to promote the intellectual, social, and moral culture of those connected with it, along the lines of czech language, literature, and thought in general. Meet-

ings are held every other Saturday; they are alternately of a literary and a seminar character. The literary meetings deal with the life of the Bohemian in this country; the seminar sessions are devoted to a study of the Bohemian language and literature. Discourse in the Bohemian tongue is encouraged.

#### THE IVRIM SOCIETY

The Ivrim Society is composed of Jewish students. The purpose of the society is the social and intellectual advancement of its members. Fortnightly meetings are held.

#### CLUBS AUXILIARY TO COURSES OF STUDY

#### IN THE COLLEGE OF LITERATURE AND ARTS

Le Cercle Français is open to students who have had one year's work in French. The club meets twice a month throughout the year. Its proceedings are conducted in French, the object being to supplement the work of the class room by the practical handling and understanding of the language.

El Circulo Español is composed of Latin-American students and of native students interested in the Spanish language and literature. The proceedings of the club are conducted in Spanish. It offers a meeting ground for native and foreign students to exchange information concerning the commerce and literature of their respective countries. Meetings are held twice a month.

The Commercial Club is composed of students in the courses of training for business. It meets on alternate Tuesday evenings to hear addresses from practical business men and to discuss commercial tonics.

Der Deutsche Verein is open to students who have pursued the study of German for two years, and to others who have a speaking knowledge of the language. Its proceedings are conducted entirely in German. Meetings are held twice a month, and programs of a literary, conversational, and musical nature are presented.

The English Club is composed of members of the faculty, and of students who have done especially good work in English. The work of the club is confined to the study of recent writers of fiction and of poetry. The membership is limited to thirty. Meetings are held on the second Monday of each month.

The History Club, consisting of instructors and advanced students, meets monthly.

The Oratorical Association is composed of students interested in public speaking. Membership may be secured upon application and the payment of a yearly fee. The Association manages an entertainment course, including the various debates and other contests, to which members are admitted free of charge.

The Pen and Brush Club was formed to promote the consistent study of the technical forms of art, and to crystallize the interest in drawing and painting. The members have a sketch class, and every month give a public lecture on some subject of interest to artists and art students. Twice a year a public exhibition is given, and every month the members have a private exhibition at which are displayed drawings submitted during the month. The club requires members in good standing to submit two drawings a month. All upperclassmen sufficiently proficient in drawing are eligible for membership.

The Political Science Club is an organization composed of advanced students and instructors in the department of political science, for the study of current questions of domestic and foreign politics. It meets once every two weeks in the political science seminar room.

The Scandinavian Club was organized in 1900 for the purpose of bringing together all students having knowledge of at least one of the Scandinavian languages. Subjects connected with the northern countries, especially with their literature, are discussed.

#### IN THE COLLEGE OF SCIENCE

The Biological Theory Club meets on alternate Monday evenings for papers, addresses, and discussions on subjects in theoretical biology. Its membership is composed of instructors in biological subjects in the Colleges of Science and Agriculture.

The Ceramic Club is composed of the instructors and advanced students of the ceramic courses. It holds weekly meetings for the discussion of abstracts from current literature and of assigned topics.

The Chemical Club meets fortnightly and is open to all students in the chemical department. Its purpose is to foster a general interest in all subjects connected with the field of chemistry.

The University of Illinois Section of the American Chemical Society holds monthly meetings for the presentation of papers on chemical researches conducted at the University. All persons interested in chemistry are eligible for membership, and all members

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receive the Journal of the American Chemical Society, Chemical Abstracts, and the Journal of Industrial and Engineering Chemistry.

The Geological Journal Club is composed of members of the staff of the Geological Survey and of advanced students and instructors of this department. Weekly meetings are held.

The Mathematical Club is composed of instructors and students of mathematics at the University. It meets once in two weeks to discuss questions of interest in pure and applied mathematics.

The Zoological Club is composed of advanced students and instructors in the zoological and physiological departments, together with such other biological instructors and advanced students as are interested in its subjects. Its sessions are devoted to the presentation and discussion of abstracts of recent biological literature and of the results of investigation by the members of the club. It meets weekly in Natural History Hall.

#### IN THE COLLEGE OF ENGINEERING

The Architects' Club meets once in two weeks to consider current topics of architectural interest. All students pursuing architectural studies are eligible to membership. This club is a member of the Architectural League of America, and a contributor to current exhibitions.

The Civil Engineers' Club meets alternate Friday evenings for the discussion of topics of engineering interest by members of the club or to listen to addresses by practicing engineers. Students in civil or municipal and sanitary engineering are eligible to membership.

The Electrical Engineering Society is a student organization open to any student interested in electrical work. Its object is to bring together all electrical students for the discussion of topics of current interest. The society maintains a technical reading room in the electrical laboratory.

The American Institute of Electrical Engineers, Urbana Section, consists of local members, associates and "students" of the American Institute of Electrical Engineers, who have organized a section for the presentation of original papers, and for the discussion of the regular Institute transactions, of which advance copies are received. All interested in electrical engineering are invited to join the Section, which holds meetings each month at the Electrical Laboratory.

The Mechanical Engineering Society meets on the second and fourth Friday evenings of each month. All students pursuing mechan-

ical engineering studies are eligible to membership. Papers relating to subjects of interest to members are presented and discussed at each meeting.

The American Society of Mechanical Engineers, Urbana Student Branch, aims to bring together those members of the junior and senior classes in the department of mechanical engineering who show a real interest in engineering work. The meetings, which occur once a month, are devoted to the discussion of the papers regularly presented before the American Society of Mechanical Engineers, of which advance copies are received. Occasionally a lecture by some prominent engineer takes the place of the regular program.

The Physics Club meets every Thursday evening from 6:30 to 8:00, in the library of the Laboratory of Physics. It is composed of instructors, graduate students, and upper classmen interested in physics.

#### IN THE COLLEGE OF AGRICULTURE

The Agricultural Club meets weekly to discuss topics of theoretical and practical interest to students of agriculture. All students connected with the University are eligible to membership.

The Household Science Club, which meets on alternate Wednesdays, is intended to foster general interest in household science. Its meetings are devoted to a discussion of topics relating to that subject.

#### IN THE COLLEGE OF LAW

The Van Twiller, Witenagemot, John Marshall, and Fuller Law Clubs hold weekly meetings for the discussion of interesting and important questions of law, and for the trial of hypothetical cases of their own choice.

#### IN THE SCHOOL OF MUSIC

For the Glee Club, the Mandolin and Guitar Club, the Military Band, and the University Choral and Orchestral Society see page 222, under the School of Music.

#### IN THE SCHOOL OF LIBRARY SCIENCE

The Library Club. Any member of the faculty of the Library School or of the staff of the Library or any student in the Library School may become a member of the Library Club. There are six regular meetings each year, held on the first Wednesday of October, November, December, February, March, and April.

# UNDERGRADUATE SCHOLARSHIPS

(For information more in detail concerning these scholarships, apply to C. M. McConn, Registrar, Urbana.)

#### COUNTY SCHOLARSHIPS

A law passed by the General Assembly of the State of Illinois at the session of 1905 provides that one scholarship may be awarded annually to each county of the State. The holder thereof must be at least sixteen years of age, and a resident of the county to which he is accredited. He is relieved of payment of the matriculation and incidental fees for four years in any department of the University other than the Academy and the professional schools.

A competitive examination, under the direction of the President of the University and upon such branches of study as the President may deem best, is held, upon the first Saturday in June of each year, at the county court house in each county by the County Superintendent of Schools. Questions for these examinations are furnished in advance to the County Superintendents.

The successful candidates in the examinations must then meet in full the requirements for admission to the freshman class and must register the following September.

In case the scholarship in any county is not claimed by a resident of that county, the President of the University may fill the same by appointing some candidate, a resident of another county, who is eligible therefor.

A student holding a scholarship who shall make it appear to the satisfaction of the President of the University that he requires leave of absence for the purpose of earning funds to defray his expenses while in attendance, may, in the discretion of the President, be granted such a leave of absence, and may be allowed an extension of his scholarship for not more than two years (making not more than six years in all from the beginning of the scholarship).

#### GENERAL ASSEMBLY SCHOLARSHIPS

The same act by which the county scholarships described above were established also provides that each member of the General Assembly may nominate annually one eligible person from his district for a scholarship in the University, granting the same privilege as the county scholarships, and to be conferred under the same conditions with regard to examination, meeting the entrance requirements, and registration.

#### SCHOLARSHIPS IN CERAMICS

The University offers annually to each county in the State one scholarship, awarded by the Trustees of the University, upon the nomination of the Clay Workers' Association, to applicants who intend to pursue any of the regular courses in ceramics. These scholarships are good for four years and relieve the student from the payment of the matriculation and incidental fees.

The applicant must meet in full, before entering, the requirements for admission to the freshman class.

In case the scholarship in any county is not claimed by a resident of that county, the President of the University may fill the same by appointing some candidate, a resident of another county, who is eligible to a vacancy.

# SCHOLARSHIPS IN AGRICULTURE AND HOUSEHOLD SCIENCE

The University offers every year to each county in the State, except Cook and Lake, and to each of the first ten congressional districts, one scholarship for prospective students of Agriculture in the College of Agriculture and one for prospective students of Household Science in the College of Literature and Arts, the College of Science, or in the College of Agriculture.

Appointments to scholarships in Agriculture are made by the Trustees of the University upon the recommendation of the executive committee of the Illinois Farmers' Institute; and to scholarships in Household Science upon the recommendation of the County Domestic Science Associations. Young men under sixteen years of age, young women under eighteen years of age, and those who have already attended the University are not eligible. Acceptable candidates, residents of counties or districts for which appointments have been made, may be assigned to counties or districts not yet represented.

The scholarships are good for two years and relieve the holders from the payment of the matriculation fee, \$10.00, and the incidental fee, \$24.00 a year. The term of a scholarship may be extended four years, if, before it expires, the holder satisfies in full the requirements for admission to the freshman class of the college in which he or she is enrolled.

#### MILITARY SCHOLARSHIPS

Students who have gained three hours' credit in class room military instruction and four in drill practice, are eligible for appointment as commissioned officers of the Regiment or Battery. Those attaining this rank may be awarded special scholarships, good for one year, and equal in value to the University incidental fees for the same length of time.

For fellowships and graduate scholarships, see under Graduate School, p. 214.

# BENEFICIARY AID

#### EDWARD SNYDER DEPARTMENT OF STUDENTS' AID

In 1899 Edward Snyder, Professor Emeritus of the German Language and Literature, gave the University the sum of \$12,000, to be lent to worthy students to enable them to finish their courses in the University.

This fund is available for junior, senior, and graduate students who need aid to remain and complete their work. The minimum loan made is fifty dollars (\$50); the maximum loan is one hundred and fifty dollars (\$150) to a junior, and two hundred dollars (\$200) to a senior or graduate student. Notes of hand are taken for the amount of the loans, with 5 per cent interest. The maximum time limit is for juniors three years and for seniors and graduates two years from the ensuing thirtieth day of June.

Loans are made only to matriculated students who have attained at least the full rank of junior, who have been in residence at the University at least one year, who are at the time students in residence at the University, and who have declared their intention to graduate.

In recommending loans, preference is given to those students who are most advanced in their University work, who have shown themselves most assiduous and successful in their studies, and have shown habitual economy in living. No distinction is made on account of sex or course of study. A loan will not be recommended for any student who is believed to have been financially or morally delinquent in any respect.

Applications for loans must be made in writing and addressed to Vice-President T. J. Burrill, Chairman of the Loan Fund Committee.

#### CLASS OF 1895 LOAN FUND

This is a fund of \$100.00 established by the class of 1895, to be lent to needy and deserving students. According to the conditions of the gift, fifty dollars is to be lent annually, and the benefit of

the fund is open only to students who, at the time of application, are members of the freshmen class. No person may receive the benefit of the fund more than four years. The loan bears interest from the time the recipient leaves the University, and is due one-half in five years and one-half in six years after matriculation. The management of the fund is in charge of the Council of Administration.

#### GRADUATE CLUB LOAN FUND

This is a fund of \$75 established by the members of the Graduate Club in 1907-1908, for the benefit of graduate students. Its administration is in the hands of the committee which is in charge of the Snyder fund, and application for loans should be made in the same manner as for loans from that fund.

#### THE FRANCIS J. PLYM FELLOWSHIP IN ARCHITECTURE

By the generosity of Mr. Francis J. Plym, of Niles, Michigan, a graduate of the University of Illinois of the class of 1897, the Trustees have been enabled to establish a fellowship for the advanced study of architecture. It is expected that the stipend attached to this fellowship will be \$1,000.00, that it will be assigned annually, and that the holder of the fellowship will spend a year in study and travel abroad. For further information address the Dean of the College of Engineering.

# FEES AND EXPENSES

#### FEES

All University fees shall be paid each semester in advance.

The regular fees for the current semester must be paid before the student is entitled to submit his study list for approval or to enter classes. Second semester fees must be paid before the close of the first semester, and every student who has not paid his fees before the opening of the second semester is excluded from the University until the fees have been paid.

If his home is not in Illinois, full tuition fees in voice, piano, violin, or other stringed instrument— For two lessons a week	
department and lower tuition fees in voice, piano, violin, or other stringed instrument—  For two lessons a week	15.00
For two lessons a week	19.50 9.00
For two lessons a week.  For one lesson a week.  In harmony, counterpoint, fugue, etc.	15.00
Preparatory Courses  A student enrolled in the School of Music only pays, each semester, tuition fees in voice, piano, violin, or other stringed instrument, any band instrument, or public school method as follows:  For two lessons a week	\$19.50
A student enrolled in another department of the University pays the fees of that other department and lower fees it voice, piano, violin, or other stringed instrument, any band instrument, or public school method, as follows:  For two lessons a week.  For one lesson a week.	15.00

# Additional

Use of a piano for practice one hour a day, each semester \$ 3.00
Additional hours at same rates.
Special students, taking music only, may enter classes in physical training on paying, each semester
College of Law
Matriculation fee, payable upon satisfying the entrance require-
ments\$10.00
Tuition fee, each semester
ter, an additional fee of
Students not enrolled in the College of Law pay, each semester,
for each Law course 5.00
COLLEGE OF MEDICINE
Matriculation fee, paid each year\$ 5.00
General ticket, freshman and sophomore years 120.00
General ticket, junior year
General ticket, senior year
Laboratory deposit, freshman and sophomore years
Dissections, per part, and County Hospital ticket, each 5.00
Maternity Hospital fee, senior year
Graduation fee
COLLEGE OF DENTISTRY
Matriculation fee, paid each year\$ 5.00
Tuition fee
\$155.00
SCHOOL OF PHARMACY
Matriculation fee, paid but once\$ 5.00
Tuition fee, shorter course, each year 75.00
Tuition fee, longer course, each year 125.00
Laboratory deposit, shorter course, each year 10.00
Laboratory deposit, longer course, each year 15.00
Diploma fee

#### AVERAGE ANNUAL EXPENSES

The following are estimated average annual expenses for	under-
graduate students attending at Urbana, exclusive of books, of	clothing,
railroad fare, laboratory fees, if any, and small miscellaneous	s needs:
*Semester fees\$ 24.00 to	\$ 24.00
Room rent for each student (two in room) 72.00 "	80.00
Table board in boarding houses and clubs 144.00 "	162.00
Washing 20.00 "	30.00

Total		\$260.00 to \$296.00
Board and room in 1	private houses, a week	\$5.50 to \$6.50

In addition to the foregoing, freshmen pay a matriculation fee of \$10.00, and the men are required to buy a cadet uniform, which costs \$15.00. Freshmen engineering students will need to buy a set of drawing instruments at a cost of about \$18.00.

Other necessary expenses will need to be taken into consideration. For all the necessary expenses of the year the average student is likely to need not less than \$350.00 to \$450.00. Most students spend more than this amount.

For information in regard to scholarships which cover the matriculation and incidental fees, see p. 116.

#### BOARD AND ROOMS

The University does not provide dormitories nor furnish board, but the numerous rooming and boarding houses near the campus are to a certain extent under the supervision of the University. The Young Men's and Young Women's Christian Associations of the University will aid new students in securing rooms and board.

Prospective women students and their parents are invited to correspond with the Dean of Women in regard to suitable places. Address Mrs. Mary E. Fawcett, in care of the University.

<sup>\*</sup>Students of law and music, special students, and pupils of the Academy must make needed changes in the amount given for "semester fees."

# PART II THE COLLEGES AND SCHOOLS

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# PART II. COLLEGES AND SCHOOLS

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# THE COLLEGES OF LIBERAL ARTS

#### FACULTY

#### EDMUND JANES JAMES, PH.D., LL.D., PRESIDENT

- EVARTS BOUTELL GREENE, PH.D., DEAN OF THE COLLEGE OF LITERA-TURE AND ARTS
  - EDGAR JEROME TOWNSEND, PH.D., DEAN OF THE COLLEGE OF SCIENCE GEORGE HENRY MEYER, A.M., ASSISTANT DEAN OF THE COLLEGE OF LITERATURE AND ARTS

#### In Art and Design-

- EDWARD JOHN LAKE, B.S., Assistant Professor
- MARY MINERVA WETMORE, Instructor
- CHARLES FABENS KELLEY, A.B., Instructor
- HARRIET DAY, Instructor

#### In the Classics-

- HERBERT JEWETT BARTON, A.M., Professor
- CHARLES MELVILLE MOSS, Ph.D., Professor
  WILLIAM ABBOTT OLDFATHER, Ph.D., Associate Professor
- ARTHUR STANLEY PEASE, Ph.D., Assistant Professor HOWARD VERNON CANTER, Ph.D., Associate

# In the Germanic Languages-

#### German

- JULIUS GOEBEL, Ph.D., Professor
- OTTO EDUARD LESSING, Ph.D., Associate Professor
- GEORGE HENRY MEYER, A.M., Assistant Professor Neil Conwell Brooks, Ph.D., Assistant Professor
- R DAISY LUANA BLAISDELL, A.M., Instructor
- CHARLES MARSHALL POOR, Ph.D., Instructor CHARLES ALLYN WILLIAMS, Ph.D., Instructor
- LEONARD BLOOMFIELD, Ph.D., Instructor
- Louis De Vries, A.M., Assistant
- PHILIP STEPHAN BARTO, A.M., Assistant ARMIN HAJMAN KOLLER, A.M., Assistant

In the Scandinavian Languages— George Tobias Flom, Ph.D., Assistant Professor

In the Romance Languages-

THOMAS EDWARD OLIVER, Ph.D., Professor (on leave)
DAVID HOBART CARNAHAN, Ph.D., Associate Professor

John Driscoll Fitz-Gerald, II, Ph.D., Assistant Professor

ARTHUR ROMEYN SEYMOUR, Ph.D., Associate

FLORENCE NIGHTINGALE JONES, Ph.D., Instructor

ATTILIO FILIPPO SBEDICO, Ph.D., Instructor

DAVID SIMON BLONDHEIM, Ph.D., Instructor
WILLIAM H. SCHEIFLEY, A.M., Instructor

WILLIAM SAMUEL HENDRIX, A.M., Assistant

HAROLD ELMER MANTZ, A.B., Assistant

#### In English-

DANIEL KILHAM DODGE, Ph.D., Professor

THOMAS ARKLE CLARK, B.L., Professor

EDWARD FULTON, Ph.D., Associate Professor

STUART PRATT SHERMAN, Ph.D., Associate Professor and Chairman EDWARD CHAUNCEY BALDWIN, Ph.D., Assistant Professor

HARRY GILBERT PAUL, Ph.D., Assistant Professor

FRANKLIN WILLIAM SCOTT, A.M., Associate, Secretary

- ERNEST MILTON HALLIDAY, A.B., LL.B., Associate

THACHER HOWLAND GUILD, A.M., Associate
HARRIE STUART VEDDER JONES, Ph.D., Associate

JACOB ZEITLIN, Ph.D., Associate

R MARTHA JACKSON KYLE, A.M., Instructor

STEPHEN FAUNCE SEARS, A.M., Instructor

- EARL LOCKRIDGE BRADSHER, A.M., Instructor

SADA ANNIS HARBARGER, A.M., Assistant

VIDA LUCILE COLLINS, A.M. Assistant

WINIFRED ALMINA PERRY, A.B., Assistant

GEORGE RHINE JACKSON, A.B., Assistant

CHARLES CHESTER PEARCE, A.B., Assistant

SAMUEL M. THOMPSON, A.B., Assistant

MARION CHARLOTTE LANDEE, Assistant

RUTH KELSO, A.M., Assistant

Lora Atkins Henion, A.B., Assistant

EULA MARY MCKINNEY, A.B., Assistant

ALTA GWINN, A.M., Assistant

EDWARD CLEVELAND RAINEY, A.B., Assistant

RALPH EARLE TIETJE, A.B., Assistant

#### In History-

- EVARTS BOUTELL GREENE, Ph.D., Professor
- GUY STANTON FORD, Ph.D., Professor
- CLARENCE WALWORTH ALVORD, Ph.D., Associate Professor
  LAURENCE MARCELLUS LARSON, Ph.D., Assistant Professor
  WILLIAM SPENCE ROBERTSON, Ph.D., Assistant Professor
- LOUIS JOHN PAETOW, Ph.D., Associate
- Solon Justus Buck, A.M., Research Assistant
- FRANK EDGAR MELVIN, A.M., Assistant
- ELIZABETH PARNHAM BRUSH, A.B., Assistant
- PAUL CHRISLER PHILLIPS, A.M., Assistant

#### In Economics-

- R DAVID KINLEY, Ph.D. LL.D. Professor
- R MAURICE HENRY ROBINSON, Ph.D., Professor
- ERNEST RITSON DEWSNUP, A.M., Professor
  - ERNEST LUDLOW BOGART, Ph.D., Associate Professor
  - NATHAN AUSTIN WESTON, Ph.D., Assistant Professor (on leave)
- JOHN CHRISTIE DUNCAN, Ph.D., Assistant Professor
- SIMON LITMAN Ph.D., Assistant Professor
- JOHN GIFFIN THOMPSON, Ph.D., Instructor
- John Ker Towles, Ph.D., Instructor
- HECTOR MACPHERSON, Ph.D., Instructor
- IRA GRAESSLE FLOCKEN, A.M., Assistant
- OSCAR ROSS MARTIN, A.B., Assistant

#### In Political Science-

- JAMES WILFORD GARNER, Ph.D., Professor
  JOHN ARCHIBALD FAIRLIE, Ph.D., Associate Professor
- WALTER FAIRLEIGH DODD, Ph.D., Associate
- CLARENCE ORAN GARDNER, A.B., Assistant

## In Sociology-

- EDWARD CARY HAYES, Ph.D., Professor

# In Philosophy-

- R ARTHUR HILL DANIELS, Ph.D., Professor
- BOYD HENRY BODE, Ph.D., Professor

# In Psychology-

- STEPHEN SHELDON COLVIN, Ph.D., Professor
- GEORGE FREDERICK ARPS, Ph.D., Assistant Professor
- ARTHUR HOWARD SUTHERLAND, Ph.D., Instructor
- TRUMAN LEE KELLEY, A.B., Assistant

#### In Education-

WILLIAM CHANDLER BAGLEY, Ph.D., Professor FRED LEMAR CHARLES, M.S., Assistant Professor LEWIS FLINT ANDERSON, Ph.D., Assistant Professor EDWIN LEE NORTON, Ph.D., Instructor

# In Astronomy-

JOEL STEBBINS, Ph.D., Assistant Professor Frank Walker Reed, Ph.D., Instructor

#### In Mathematics—

SAMUEL WALKER SHATTUCK, C.E., LL.D., Professor & Edgar Jerome Townsend, Ph.D., Professor & George Abram Miller, Ph.D., Professor Henry Lewis Rietz, Ph.D., Assistant Professor Charles Herschel Sisam, Ph.D., Assistant Professor

RJAMES BYRNE SHAW, D.Sc., Assistant Professor
ARNOLD EMCH, Ph.D., Assistant Professor
ARTHUR ROBERT CRATHORNE, Ph.D., Associate
ROBERT LACEY BÖRGER, Ph.D., Associate
ERNEST BARNES LYTLE, Ph.D., Associate
LEWIS IRVING NEIKIRK, Ph.D., Instructor
GUSTAV ERIC WAHLIN, Ph.D., Instructor

THOMAS BUCK, Ph.D., Instructor
GEORGE ERNEST CARSCALLEN, A.M., Assistant
WILLIAM WELLS DENTON, A.M., Assistant
CHESTER HUME FORSTH, A.M., Assistant
CHARLES ANTHONY BARNHART, A.B., Assistant

CHARLES ANTHONY DARMHARI, A.B., Assistant
JOHN HARRISON MINNICK, A.M., Assistant
WARD HASTINGS TAYLOR, A.B., Assistant

#### In Physics-

RALERT PRUDEN CARMAN, D.Sc., Professor
CHARLES TOBIAS KNIPP, Ph.D., Assistant Professor (on leave)
FLOYD ROWE WATSON, Ph.D., Assistant Professor
WILLIAM FREDERICK SCHULZ, E.E., Ph.D., Assistant Professor
JAKOB KUNZ, Ph.D., Assistant Professor

WALDEMAR MATTHAEUS STEMPEL, A.M., Instructor
THOMAS SMITH TAYLOR, Ph.D., Instructor

ELMER HOWARD WILLIAMS, Ph.D., Instructor

JAY WALTER WOODROW, A.M., Instructor

- JACOB GARRETT KEMP, A.M., Assistant

- WILLIAM HENRY HYSLOP, A.B., Assistant
- ORRIN HAROLD SMITH, A.M., Assistant
- LLOYD THEODORE JONES, A.M., Assistant

## In Chemistry-

- WILLIAM ALBERT NOYES, Ph.D., LL.D., Professor and Director
- SAMUEL WILSON PARR, M.S., Professor
- EDWARD BARTOW, Ph.D., Professor
- PHILIP BOVIER HAWK, Ph.D., Professor
- -RICHARD SYDNEY CURTISS, Ph.D., Assistant Professor
- CLARENCE WILLIAM BALKE, Ph.D., Assistant Professor
- EDWARD WIGHT WASHBURN, Ph.D., Assistant Professor
- DAVID FORD MCFARLAND, Ph.D., Assistant Professor
- GEORGE MCPHAIL SMITH, Ph.D., Associate
- HELEN ISHAM, Ph.D., Instructor
- GRINNELL JONES, Ph.D., Instructor
- RICHARD HENRY JESSE, JR., Ph.D., Instructor
- LAURIE LORNE BURGESS, Ph.D., Instructor
- CLARENCE GEORGE DERICK, Ph.D., Instructor
- ELLEN S McCarthy, Ph.D., Instructor
- PAUL EDWARD HOWE, Ph.D., Instructor
- JAMES EVERETT EGAN, A.M., Assistant
  - EARLE KENNETH STRACHAN, M.S., Assistant
- LLOYD FRANCIS NICKELL, A.B., Assistant
- ROBERT HOWARD STEVENS, M.S., Assistant
  CLARENCE JAMES BAKER, A.B., Assistant
- Jack Harris Mitchell, M.S., Assistant
- HARRY PEACH CORSON, B.S., Assistant
- JOSEF HECHT, D.Eng., Research and Lecture Assistant
- WALTER THOMPSON MURDOCK, B.S., Graduate Assistant
- HENRY HERBERT RADCLIFFE, A.B., Graduate Assistant
- Hugh Byron Gordon, M.S., Graduate Assistant
- -DAVID WRIGHT WILSON, B.S., Graduate Assistant
- CARL PAXSON SHERWIN, B.S., Graduate Assistant
- E. L. Ross, B.S., Graduate Assistant
- -G. E. OSTROM, Graduate Assistant
- JOHN HENRY BORNMANN, B.S., Graduate Assistant
- \_Norman Robert Blatherwick, B.S., Graduate Assistant

# In Geology-

- CHARLES WESLEY ROLFE, M.S., Professor
- RWILLIAM SHIRLEY BAYLEY, Ph.D., Associate Professor
- RTHOMAS EDMUND SAVAGE, Ph.D., Assistant Professor

- Rufus Mather Bagg, Ph.D., Instructor
- Joseph Gladden Hutton, M.S., Assistant
- WALTER ELMER EKBLAW, A.B., Assistant

#### In Ceramics-

- ALBERT VICTOR BLEININGER, B.S., Professor
- RAY THOMAS STULL, E.M., Instructor
- EARL TOWSE MONTGOMERY, E.M., Assistant

#### In Botany-

- THOMAS JONATHAN BURRILL, Ph.D., LL.D., Professor CHARLES FREDERICK HOTTES, Ph.D., Assistant Professor
- -WARD J MACNEAL, M.D., Ph.D., Assistant Professor
- JAMES THEOPHILUS BARRETT, Ph.D., Associate
- CHARLES FRANCIS BRISCOE, A.M., Instructor
- LENORE LYDIA LATZER, M.S., Assistant
- JESSIE E. BALDWIN, A.B., Assistant
- PHILIP AUGUSTUS LEHENBAUER, A.M., Assistant
  - JOHN HAMILTON WHITTEN, Assistant
- IDA EMILY AKIN, A.B., Assistant
  STELLA MAY HAGUE, A.B., M.S., Assistant
  ROSALIE MARY PARR, A.B., Assistant

#### In Zoology-

- K HENRY BALDWIN WARD, Ph.D., Professor
- FRANK SMITH, A.M., Associate Professor
  - CHARLES ZELENY, Ph.D., Associate Professor
- -Charles Christopher Adams, Ph.D., Associate
- \_WILLIAM FITCH ALLEN, A.M., Instructor
- GEORGE ROGER LARUE, A.M., Research Assistant
- JAMES EDWARD ACKERT, A.B., Assistant
- -WILLIAM WALTER CORT, A.B., Assistant
- BESSIE ROSE GREEN, A.M., Assistant
- ELBERT WILLIAMS CRANDALL, Ph.B., Graduate Assistant
  John Earl Gutherlet, A.B., Graduate Assistant

## In Physiology-

13

- Frank Christian Becht, Ph.D., Assistant Professor
  Otis Orion Stanley, M.S., M.D., Instructor
  - ROBERT WOOD KEETON, A.B., Assistant
- INDERI WOOD KEETON, A.D.,

## In Entomology-

- STEPHEN ALFRED FORBES, Ph.D., LL.D., Professor
- JUSTUS WATSON FOLSOM, D.Sc., Assistant Professor
- ROBERT DOUGLAS GLASGOW, A.B., Assistant
  - MAURICE COLE TANQUARY, A.M., Assistant

In Household Science-

- ISABEL BEVIER, Ph.M., Professor
- SUSANNAH USHER, B.S., Assistant Professor
- Anna Roberta Van Meter, M.S., Assistant Professor
- CHARLOTTE MITCHELL GIBBS, A.M., Associate
- NELLIE ESTHER GOLDTHWAITE, Ph.D., Associate
- Helena Maude Pincomb, B.S., Instructor in Household Science for Secondary Schools
- NINA BELLE CRIGLER, B.S., Assistant
- HARRIET BECKWITH RINAKER, A.M., Assistant
- NELLE MAJOR DICKINSON, B.S., Assistant

# THE COLLEGE OF LITERATURE AND ARTS

For a description of the buildings used by this college, see p. 63; for collections belonging to it (art, commerce, and education), see p. 71; for a summary of its courses, see p. 78; for clubs and societies auxiliary to its courses of study, see p. 112; for fecs, see p. 121.

# PURPOSE

The purpose of the College of Literature and Arts is to secure for its students a liberal education, including both the humanities and the sciences. Students who complete the course receive the degree of Bachelor of Arts. This College is especially adapted to the needs of the following classes of students:

- Those who wish to pursue a somewhat general course in the arts and sciences as a basis for later professional or technical studies. It will ordinarily be possible for a good student to arrange his work in such a way as to secure in six years a professional or technical degree in addition to that in arts.
- 2. Students who desire to prepare themselves for teaching. Under the modified elective system a student may specialize to a considerable extent in the particular subject which he wishes to teach and may also find time for courses in education and related subjects which are of interest to teachers generally. Such students should, however, as a rule continue their preparation in the Graduate School.

3. Students who find it necessary to devote a considerable part of their undergraduate course to specific preparation for some particular calling other than teaching. Such vocational training may be secured at present in the Household Science Course and the Courses of Training for Business (including Journalism). Students regularly registered for these courses are subject to the general requirements of the College, but must meet also certain special requirements described below.

# ADMISSION

See the general statement of the entrance requirements of the University, pp. 83 ff.

# SPECIAL STUDENTS

For a statement of the general regulations of the University in regard to special students, see p. 102.

It is the policy of this College to admit as special students only a select group of mature and serious persons who, though unable to meet the formal requirements for entrance, are substantially prepared for work of college grade.

# GENERAL REQUIREMENTS FOR GRADUATION

The only degree given on graduation from the College of Literature and Arts is that of Bachelor of Arts. The following general requirements apply to all candidates for this degree:

- A. University Requirements.—Each candidate must meet the general University requirements as to residence and registration (p. 104). He must also secure credit in approved courses (see pp. 135, 136 below) amounting to 130 hours. An hour is one class period a week for one semester, each class period presupposing two hours' preparation by the student, or the equivalent in laboratory or drawing room.
- B. Prescribed Studies.—Subjects specifically prescribed: Rhetoric 1 (6 hours); Physical Training, 1 and 1a for men, 7 and 9 for women; Military Science 1 and 2, for men.
- C. Group Requirements.—Every candidate must offer a minimum of 8 hours in each of the following groups:
  - I. English, including English literature and rhetoric.
- II. Ancient and modern languages other than English, including Greek, Latin, the Germanic languages, and the Romance languages.

III. The social sciences, including history, economics, political science, and sociology.

IV. Mathematics and philosophy, including mathematics, education, philosophy, and psychology. A candidate who elects mathematics must take at least five hours of it. If a student does not elect mathematics, his elections in this group must include work in at least two of the other departments of the group. That is, if he does not take mathematics, he must take either philosophy and psychology, or philosophy and education, or education and psychology. With the exception of mathematics, no subject of this group is open to freshmen.

V. The natural sciences, including astronomy, botany, chemistry, entomology, geology, physiology, physics, and zoology.

D. Major Subjects.—Each candidate must select some one subject to be designated as his major, and secure credit in that subject to the amount of 24 hours. The courses selected for the last two years should include some distinctly advanced work. The subjects which may be recognized as majors in this college are subject to additions from time to time; at present they are as follows: Economics; education; English¹ (including English literature and rhetoric); French²; German²; Greek; history; household science; Latin; mathematics; philosophy; political science; psychology; sociology.

Special requirements and suggestions for students in business courses and in household science are indicated below, on pages 139 and 146 respectively. Students holding scholarships in household science must make that subject their major, and take one of the courses outlined on pages 146, 147 below.

E. Elective Subjects.—The remainder of the course is made up of electives chosen under the following conditions:

1. Credit is regularly given for courses properly announced in the following subjects: Art and design (the total credit in this department is limited to 20 hours); the classics; the Germanic languages; the Romance languages; English; history; economics (including accounting and commercial law); political science; sociology; philosophy; psychology; education; astronomy; mathe-

 $<sup>^1\</sup>mathrm{A}$  major in English must include 24 hours in addition to English 1 and Rhetoric 1. Of these 24 hours at least 8 must be in English literature, and at least 4 in rhetoric.

 $<sup>^2\</sup>mathrm{A}$  major in French must include 24 hours in addition to French 1.  $^3\mathrm{A}$  major in German must include 24 hours in addition to German 1 and 3.

matics; physics; chemistry (not including technical courses in chemical engineering); geology; botany (except Botany 12); zoology; entomology; physiology; household science.

- 2. Not more than 40 hours in any one subject may be counted for graduation, except when the student is writing a thesis. In this case he may count, in addition to the 40 hours, the hours of the seminar course in which he does his thesis work. In the department of English a student may take 40 hours in addition to Rhetoric 1.
- 3. No credit is granted in any subject unless the student pursues it for the full time required in the shortest course offered in that subject. For example, if the student elects a course which yields two hours of credit for one semester, he must stay in the class during the semester in order to get any credit at all. In order to secure any credit in a beginning course in a foreign language, a full year's work must be completed.
- 4. Seniors registered in courses open to freshmen may receive only one-half of the credit regularly assigned to such courses. For the year 1910-1911 the following courses are included in this list: Art and Design 1 and 2; Astronomy 1; Botany 11; Chemistry 1; Economics 7, 22, 26; English 1, 2; French 1; Geology 3, 10, 14; German 1, 3; Greek 1; History 1, 11; Household Science 2, 7; Latin 1; Library Science 12; Mathematics 2, 4; Spanish 1; Zoology 10, 17b.
- 5. A limited amount of credit toward the A.B. degree is ordinarily given for courses offered in other colleges and schools of this University as follows:

Physical Training.—Not to exceed 5 semester hours.

Military Science and Tactics .- Military Science 1 and 2.

Law.—Law 1 (Contracts); Law 2 (Torts); Law 3 (Real Property); Law 6 (Personal Property). The total credit is limited to 17 hours. None of these courses may be taken before the junior year, and they should not ordinarily be taken before the senior year.

Engineering.—General Engineering Drawing 1 and 2 (Mechanical Drawing and Descriptive Geometry); Theoretical and Applied Mechanics 7 and 8 (Analytical Mechanics); Mechanical Engineering 7 or 15 (Thermodynamics); Civil Engineering 10 or 21 (Surveying); Architecture 6 (History of Architecture); Architecture 8 (Architectural Drawing); Architecture 29a (History of Architecture); Architecture 29b (History of Sculpture and Painting); Electrical Engineering 1 and 21, or 2 and 26 (Principles).

Agriculture.—Agricultural Extension 2 (Elementary Agriculture for Teachers); Agronomy 5 (Seeds), for business students only; Agronomy 9 (Soil Physics); Agronomy 15 (Comparative Agriculture); Agronomy 22 (Plant Breeding); Animal Husbandry 7 (Principles of Animal Nutrition); Horticulture 9 (Forestry); Horticulture 10a (Landscape Gardening); Horticulture 12 (Evolution of Horticultural Plants); Horticulture 19 (General Floriculture), for household science students only; Thremmatology 1 (Principles of Evolution as Applied to the Improvement of Domesticated Animals and Plants). The total credit allowed in these agricultural courses will not ordinarily exceed 14 hours.

Library Science.—Selection of Books (Lib. 3); History of Libraries (Lib. 7); Book-making (Lib. 9); General Reference (Lib. 12); Public Documents (Lib. 13). The total credit allowed in Library Science will not ordinarily exceed 14 hours. The course in General Reference (Lib. 12) is of special value to students in the College of Literature and Arts.

 $\it Music. — Music$  1, 2, 3, 4, and 5 (courses in the history and theory of music).

Courses not listed under paragraphs 1 to 5 above, may not be counted for the degree of A.B., except by special permission of the Dean of the College.

F. Bachelor's Theses.—A bachelor's thesis is not generally required in this College. Students of high standing are, however, encouraged to write theses in connection with their major studies. Credit toward the degree is given for thesis work only as a part of the work in some course for which the student is registered. The presentation of a thesis is specifically required of all candidates for special honors. See above page 106.

# ARRANGEMENT OF COURSES

#### FIRST YEAR

# Subjects Prescribed for Freshmen

The following subjects must be taken during the freshman year: Rhetoric 1, three hours each semester; Military 2, one hour each semester, and Military 1, one hour second semester (for men); Physical Training (Physical Training 1 and 1a for men; 7 and 9—Physiology 6—for women); foreign language, 4 hours each semester.

# Freshman Electives

The following subjects are open to freshmen. The total amount taken in any semester is limited to eighteen hours, and should not be less than fifteen. In making his choice, the student must include subjects in at least three of the groups indicated on pp. 134, 135. The Roman numerals refer to these groups.

The figure immediately following the subject is the number of the course (see "General Description of Courses," pp. 289 ff.); the figure in parentheses indicates the number of credit hours the course earns each semester.

First Semester:

I. English 1 (4); Rhetoric 1 (3) and 7 (2).

II. French 1 (4) or 2 (4); German 1 (4), or 3 (4), or 4 (4), or 13 (3); Greek 1 (4), or 3 (4), or 5 (3), or 7 (5); Latin 1 (4) or 2 (4); Spanish 1 (4).

III. Mathematics 2 (3) and 4 (2).

IV. Economics 7 (3) and 26\* (3); History 1 (4).

V. Astronomy 1 (3); Botany 2 (5), 4 (5), and 11 (5); Chemistry 1\* (5) or 1a\* (4); Entomology 1 (2); Geology 1 (5), 3 (5), and 14 (3); Zoology 10\* (5).

Second Semester:

I. English 2 (4); Rhetoric 1 (3) and 7 (2).

II. French 1 (4) or 2 (4); German 3 (4), or 4 (4), or 5 (4), or 6 (4); Greek 1 (4), or 4 (4), or 6 (3), or 8 (3); Latin 1 (4) or 2 (4); Spanish 1 (4).

III. Mathematics 3a (2), 6 (5).

IV. Economics 22 (3) and 26\* (3); History 1 (4) and 11 (3).

V. Astronomy 4 (5); Botany 1 (5) or 17 (3); Chemistry 1\* (5), or 1a\* (4), or 2 (2) and 3 (3); Entomology 1 (2); Geology 1a (5), 8 (3), and 10 (5); Zoology 2 (5), 10\* (5), 17b (2 or 3).

The following subjects not included in any group are also open to freshmen:

First Semester:

Art and Design 1 (2 or 3).

Household Science 2 (2) and 7 (2).

Library Science 12 (2).

Second Semester:

Art and Design 2 (3).

Household Science 1 (3).

Library Science 12 (2).

<sup>\*</sup>May be taken in either semester, but not in both.

#### SECOND YEAR

Male students must continue Military 2 throughout the year. Students who have failed to secure credit for any of the prescribed subjects of the freshman year must make up such deficiencies at this time.

#### ELECTION

Aside from these subjects prescribed for the first two years, each student selects, with the advice of the Dean or other college advisers, such courses as will enable him to meet the requirements for graduation as stated above.

# COURSES IN BUSINESS ADMINSTRATION

Courses in economics, accountancy, banking, commerce, railway administration, and industry are offered in combination with courses in language, law, and science, with the aim of providing a university training for business life. The combined courses are designed to give the student a knowledge of the general principles that underlie all lines of business, with special training in the work of some particular calling.

### ARRANGEMENT OF COURSES

The subjects of study are so arranged as to furnish training for (1) general business; (2) banking; (3) accountancy; (4) railway traffic and accountancy; (5) railway transportation; (6) insurance; (7) the consular service; (8) journalism.

The work of the class-room is supplemented with lectures by practical specialists, and with visits of inspection to industrial and mercantile establishments.

The outlines of the General Business Course, the courses in Banking, Accountancy, Railway Administration, and Insurance, the Course for the Consular Service, and the Course in Journalism are given below.

### GENERAL BUSINESS COURSE

This course is intended for students who wish to get a general knowledge of modern business organization and methods and their relation to the public welfare, without specializing in the details of any particular business. Every student must take work amounting to from 15 to 18 credit hours each week. Students desiring mathematics, or taking courses requiring it, should elect it in the first year, omitting Economic Resources (Economics 26), or Economic History

of the United States (Economics 22), and science, which may then be elected the second year. Economic Resources (Economics 26) is repeated the second semester.

# General Business Course

#### FIRST YEAR

FIRST SEMESTER Prescribed Subjects Foreign language Poteign Manuage Rhetoric (Rhet. 1) Military (Mil. 2) Physical Training (P. T. 1 and 1a) Economic Resources (Econ. 26) Eng. Econ. Hist. (Econ. 7); or Mathematics (Math. 2, 4); or Science

SECOND SEMESTER Prescribed Subjects Foreign language Rhetoric (Rhet. 1)
Military (Mil. 1, 2)
Physical Training (P. T. 1)
Econ. Hist. U. S. (Econ. 22)
Mathematics (Math. 6); or Science

FIRST SEMESTER Prescribed Subjects Principles of Econ. (Econ. 1) Amer. Fed'l Gov't (Pol. Sci. 1) Military (Mil. 2) History of U. S. (History 3); or European History (Hist. 1)

Suggested Electives Foreign language continued Mathematics Science

#### SECOND YEAR

SECOND SEMESTER Prescribed Subjects Money and Banking (Econ. 3) Business Writing (Rhet. 10) Military (Mil. 2)
Amer. State Gov't (Pol. Sci. 3)
History of U. S. (Hist. 3); or European History (Hist. 1)

Suggested Electives Foreign language continued Mathematics Science

#### THIRD YEAR

FIRST SEMESTER Prescribed Subjects Accounting (Acc'y 1) Corporation Management (Econ. 10) Domestic Commerce (Econ. 28); or Tariff and Customs Regulations (Econ. 30) Municipal Gov't (Pol. Sci. 4)

Suggested Electives History Public Finance (Econ. 5) Foreign language continued Accounting (Acc'y, 3) R'y Hist, and Orgn. (Econ. 41) Fed'l Constitution (Pol. Sci. 5) Psychology (Psychol. 1)

SECOND SEMESTER Prescribed Subjects Accounting (Acc'y 1) Foreign Commerce (Econ. 29); or Organization of Ocean Commerce (Econ. 36); or U. S. Com. Relations (Econ. 31)

Suggested Electives History Indus. Consolid. (Econ. 11) Foreign language continued
Accounting (Acc'y 2)
R'y Administration (Econ. 42) Logic (Phil, 1b)

# FOURTH YEAR

FIRST SEMESTER Prescribed Subjects Seminar (Econ. 18) Labor Problems (Econ. 12) Pol. and Soc. Ethics (Phil. 9) Econ. Hist. of Europe (Econ. 13) Suggested Electives Finan. Hist. of U. S. (Econ. 4)

(See also third year electives)

SECOND SEMESTER Prescribed Subjects Seminar (Econ. 18) Labor Problems (Econ. 12) Commercial Law (Law B) Advanced Econ. Hist. of U. S. (Econ. 14)

Suggested Electives Social Reform (Econ. 21) State and Local Administration (Pol. Sci. 13) (See also third year electives)

# COURSE IN BANKING

The work of the first and second years in banking is the same as in the general business course, but students must take advanced algebra (Mathematics 2), which is a prerequisite for the mathematics of investments (Mathematics 23a).

# Course in Banking

#### THIRD YEAR

FIRST SEMESTER
Prescribed Subjects
Accounting (Acc'y 1)
Corporation Management
(Econ. 10)
Public Finance (Econ. 5)

Public Finance (Econ. 5)
Suggested Electives
Accounting (Acc'y 3)
Domestic Commerce (Econ. 28)
Psychology (Psychol. 1)
Logic (Phil. 1a)
History

SECOND SEMESTER
Prescribed Subjects
Accounting (Acc'y 1)
Math. of Investments (Math. 23a)
State and Local Admin. (Pol.
Sci. 13)
Suggested Electives

Suggested Electives
Accounting (Accy 2)
Foreign Commerce (Econ. 29)
Psychology (Psychol. 2)
Indus. Consolid. (Econ. 11)
History

# FOURTH YEAR

FIRST SEMESTER

Prescribed Subjects

Practical Banking (Econ. 9)

Finan, Hist. of U. S. (Econ. 4)

Pol. and Soc. Ethics (Phil. 9)

Seminar (Econ. 18)

Suggested Electives
Labor Problems (Econ. 12)
Tariff and Customs Regulations
(Econ. 30)
Contracts (Law 1)

SECOND SEMESTER

Prescribed Subjects
The Money Market (Econ. 8)
Commercial Law (Law B)
Seminar (Econ. 18)

Suggested Electives

Suggested Electives
Labor Problems (Econ. 12)
U. S. Commercial Relations
(Econ. 31)
Contracts (Law 1)

### COURSE IN ACCOUNTANCY

The development of the commercial, industrial, and financial interests of the country has given rise to a demand for accountants.

In 1903 a law was passed in Illinois placing the work of public accounting upon a professional basis. According to this law, candidates are required to pass examinations in commercial law as affecting accountancy, the theory of accounts, practical accounting, and auditing.

In order to give students adequate preparation for this field, the University offers a four years' course in business administration including a maximum of work in accountancy, and including also economics, history, political science, statistics, language, and other subjects.

# Course in Accountancy

### FIRST YEAR

FIRST SEMESTER Prescribed Subjects Foreign Language Roteoric (Rhet. 1)
Military (Mil. 2)
Physical Training (P. T. 1, 1a)
Algebra and Trig. (Math. 2, 4)
English Econ. Hist. (Econ. 7)

SECOND SEMESTER Prescribed Subjects Foreign Language Rhetoric (Rhet. 1)
Military (Mil. 1, 2)
Physical Training (P. T. 1)
Analytical Geom. (Math. 6) U. S. Econ. Hist. (Econ. 22)

#### SECOND YEAR

FIRST SEMESTER Prescribed Subjects Principles of Econ. (Econ. 1) Calculus (Math. 8a) Military (Mil. 2)

Science Science
Suggested Electives
Foreign language continued
Europ. Hist. (Hist. 1)
History of U. S. (Hist. 3)
Amer. Fed'l Gov't (Pol. Sci. 1)

SECOND SEMESTER Prescribed Subjects Money and Banking (Econ. 3) Business Writing (Rhet. 10) Military (Mil. 2)

Science Suggested Electives Foreign language continued Europ. Hist. (Hist. 1) History of U. S. (Hist. 3) Amer. State Gov't (Pol. Sci. 3)

#### THIRD YEAR

FIRST SEMESTER Prescribed Subjects Prin. of Acciting (Acciy 1)
Indust. Accounting (Acciy 3)
Corporation Management (Econ. 10) Statistics (Math. 129) Public Finance (Econ. 5) Municipal Gov't (Pol. Sci. 4) Suggested Electives Foreign language Domestic Commerce (Econ. 28) Logic (Phll. 1a) R'y Hist, and Organ. (Econ. 41)

SECOND SEMESTER Prescribed Subjects Prin. of Acc'ting (Acc'y 1)
Cost Accounting (Acc'y 2)
Indust. Consolid. (Econ. 11)
Statistics (Math. 129) Math, of Investments (Math. 23a) Suggested Electives Foreign language Foreign Commerce (Econ. 29) R'y Administration (Econ. 42)

#### FOURTH YEAR

FIRST SEMESTER Prescribed Subjects
Advanced Acciting (Acc'y 4)
Trustee and R'y Acc'ting (Acc'y 6)
Seminar (Econ. 18)
Contracts (Law 1)
Pol. and Soc. Ethics (Phil. 9) Suggested Electives
Practical Banking (Econ. 9)
Labor Problems (Econ. 12)

SECOND SEMESTER Prescribed Subjects Advanced Acc'ting (Acc'y 4)
Auditing (Acc'y 5)
Commercial Law (Law B) Seminar (Econ. 18) Contracts (Law 1) Suggested Electives
Money Market (Econ. 8)
Labor Problems (Econ. 12)
State and Loc. Admin.
(Pol. Sci. 13)

# COURSES IN RAILWAY ADMINISTRATION

There are two courses offered under the head of railway administration; one emphasizing those subjects which are of most value to the student interested in the accounting and traffic aspects of railway work; the other laying stress upon the transportation service, properly so called, and intended to prepare men directly for the transportation departments of our railways.

# Course in Railway Traffic and Accountancy

# FIRST YEAR

FIRST SEMESTER Prescribed Subjects Freschied Backets
Foreign language
Rhetoric (Rhet, 1)
Military (Mil. 2)
Physical Training (P. T. 1 and 1a)
Algebra and Trig. (Math. 2, 4)

Economic Resources (Econ. 26)

SECOND SEMESTER Prescribed Subjects Foreign language
Rhetoric (lthet, 1)
Military (Mil. 1, 2)
Physical Training (P. T. 1)
Anal. Geom. (Math. 6)
Econ. Hist, of U. S. (Econ. 22)

#### SECOND YEAR

FIRST SEMESTER Prescribed Subjects Principles of Econ. (Econ. 1)
Calculus (Math. 8a)
Physics (Phys. 1, 3)
Military (Mil. 2)

SECOND SEMESTER Prescribed Subjects Money and Banking (Econ. 3)
Business Writing (Rhet. 10)
Physics (Phys. 1, 3)
Military (Mil. 2)
History of U. S. (Hist. 3)
Amer. State Gov't (Pol. Sci. 3)

#### THIRD YEAR

FIRST SEMESTER Accounting (Accy 1, 3)
Corporation Management (Econ. 10)
Ry Hist, and Organ. (Econ. 41)
History of U. S. (Hist. 3)
Traffic Admin. (Econ. 43) SECOND SEMESTER

Prescribed Subjects
Accounting (Acc'y 1, 2)
Indus. Consolid. (Econ. 11)
R'y Administration (Econ. 42)
Math. of Investments (Math. 23a) R'y Transportation (Econ. 44)

### FOURTH YEAR

FIRST SEMESTER Prescribed Subjects
Accounting (Acc'y 4, 6)
R'y Practice (Econ. 45)
Sem. in R'y Admin. (Econ. 18)
Pol. and Soc. Ethics (Phil. 9) Suggested Electives
Amer. Fed'l Gov't (Pol. Sci. 1)
Fed'l Constitution (Pol. Sci. 5)

SECOND SEMESTER Prescribed Subjects
Accounting (Ace'y 4, 5)
Foreign R'y Systems (Econ. 47)
Sem. in R'y Admin. (Econ. 18)
Commercial Law (Law B) Suggested Electives State and Local Admin.

(Pol. Scl. 13)

# Course in Railway Transportation

In addition to the prescribed subjects in this course other subjects may be elected where opportunity offers; six hours of such elections must be from history, political science, advanced language, or ethics.

Prescribed Subjects Foreign language Rhetoric (Rhet. 1) Military (Mil. 2) Physical Training (P. T. 1 and 1a) Gen. Engin. Drawing (G. E. D. 1) Algebra and Trig. (Math. 2, 4)

FIRST SEMESTER

SECOND SEMESTER Prescribed Subjects Foreign language Rhetoric (Rhet. 1) Milliary (Mil. 1, 2) Physical Training (P. T. 1) \*Descriptive Geom. (G. E. D. 2) Anal. Geom. (Math. 6)

<sup>\*</sup>This subject is to be taken for three hours' credit only.

#### SECOND YEAR

FIRST SEMESTER Prescribed Subjects Principles of Econ. ( Econ. 1) Calculus (Math. 7) Physics (Phys. 1, 3) Military (Mil. 2)

SECOND SEMESTER Prescribed Subjects Money and Banking (Econ. 3)
Calculus (Math. 9)
Physics (Phys. 1, 3)
Military (Mil. 2)
Anal. Mech. (T. and A. M. 7)
Engines and Boilers (M. E. 11)

#### THIRD YEAR

FIRST SEMESTER Prescribed Subjects Corporation Management (Econ. 10) R'y Hist, and Organ. (Econ. 41) Traffic Admin. (Econ 43)
Anal. Mech. and Resist. of Materials (T. and A. M. 8, 9)

SECOND SEMESTER Prescribed Subjects Business Writing (Rhet. 10)
R'y Administration (Econ. 42)
R'y Transportation (Econ. 44)
Mech. Engin. Lab. (M. E. 13)
Electrical Engin. (E. E. 16)
Surveying (C. E. 10)

#### FOURTH YEAR

FIRST SEMESTER Prescribed Subjects Prescribed Subjects
R'y Practice (Econ. 45)
Sem. in R'y Admin. (Econ. 18)
Accounting (Acc'y 1)
Labor Problems (Econ. 12)
Locomotives (R'y E. 1)
Engin. Materials (T. and A. M. 6)

SECOND SEMESTER Prescribed Subjects Foreign R'y Systems (Econ. 47) Sem. in R'y Admin, (Econ. 18) Accounting (Accy 1) Labor Problems (Econ. 12) R'y Tests (R'y E. 11) Commercial Law (Law B)

#### COURSE IN INSURANCE

The work of the first and second years in insurance is the same as in the Course in Railway Traffic and Accounting, except that Econ. 7 (Econ. Hist. of England) takes the place of economic resources (Econ. 26), and that any other science may be taken instead of physics.

# Course in Insurance

#### THIRD YEAR

FIRST SEMESTER Prescribed Subjects
Accounting (Acc'y 1, 3)
Corporation Management (Econ. 10) Statistics (Math. 129) Amer. Fed'l Gov't (Pol. Sci. 1) Suggested Electives Foreign language continued History of U. S. (Hist. 3) European Hist. (Hist. 1) Public Finance (Econ. 5)

SECOND SEMESTER Prescribed Subjects Accounting (Acc'y 1, 2) Math. of Investments (Math. 23a) Statistics (Math. 129) Amer. State Gov't (Pol. Sci. 3) Suggested Electives
Foreign language continued
Hist. of U. S. (Hist. 3)
European Hist. (Hist. 1)
State and Local Admin.
(Pol. Sci. 13)

#### FOURTH YEAR

FIRST SEMESTER

Prescribed Subjects
Econ. of Insurance (Econ. 33)
Sem. In Insur. (Econ. 18)
Contracts (Law I)
Pol. and Soc. Ethics (Phil. 9)
Actuarial Theory (Math. 31)

Suggested Electives
Econ. Hist. of Europe (Econ. 13)
Labor Problems (Econ. 12)
Finan. Hist. of U. S. (Econ. 4)
Practical Banking (Econ. 9)

SECOND SEMESTER

Prescribed Subjects
Commercial Law (Law B)
Sem. in Insur. (Econ. 18)
Contracts (Law 1)

Suggested Electives
Advanced Econ. Hist. of U. S.
(Econ. 14)
Labor Problems (Econ. 12)
Indus. Consolid. (Econ. 11)
Money Market (Econ. 8)

### Course for the Consular Service

# FIRST YEAR

FIRST SEMESTER
PRESCRIBED Subjects
Foreign language
Rhetoric (Rhet. 1)
Military (Mil. 2)
Physical Training (P. T. 1 and 1a)
Economic Resources (Econ. 26)
English Econ. Hist. (Econ. 7); or
European Hist. (Hist. 1)

SECOND SEMESTER

Prescribed Subjects

Foreign language
Rhetoric (Rhet. 1)
Military (Mil. 1, 2)
Physical Training (P. T. 1)
Econ. Hist. of U. S. (Econ. 22); or
European Hist. (Hist. 1)

# FIRST SEMESTER

Prescribed Subjects
Principles of Economics (Econ. 1)
Foreign language continued
American Fed'l Gov't (Pol. Sci. 1)
Science
Military (Mil. 2)

# SECOND YEAR

SECOND SEMESTER

Prescribed Subjects

Money and Banking (Écon. 3)

Foreign language continued

American State Gov't (Pol. Sci. 3)

Business Writing (Rhet. 10)

Sclence

Military (Mil. 2)

#### THIRD YEAR

FIRST SEMESTER

Prescribed Subjects

Domestic Commerce (Econ, 28); or
Tariff and Customs Regulations
(Econ, 30)
Foreign language continued
Psychology (Psychol, 1)
British Gov't (Pol, Scl. 2a)
International Law (Pol, Scl. 6)
History of U. S. (Hist. 3)
Accounting (Acc'y 1)

SECOND SEMESTER

Preseribed Subjects

Foreign Commerce (Econ. 29); or Organization of Ocean Commerce (Econ. 86)

Foreign language continued Psychology (Psychol. 1)

Cont. European Goy'ts

Cont. European Gov'ts
(Pol. Sci. 2b)
History of U. S. (Hist. 3)
Accounting (Acc'y 1)

#### FOURTH YEAR

FIRST SEMESTER
Prescribed Subjects
Foreign language continued
Public Finance (Econ. 5)
Pol. and Soc. Ethics (Phil. 9)
Seminar (Econ. 18)

Suppested Electrics
Hist. of Latin America and the Philippines (Hist. 27)
Fon. Hist. of Eurone (Feon. 13)

Suggested Electives
Hist, of Latin America and the
Philippines (Hist, 27)
Econ. Hist, of Europe (Econ. 13)
Corporation Management
(Econ. 10)
Revol, and Napoleonic Era
(Hist, 7)

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SECOND SEMESTER
Foreign language continued
Consular and Diplom. Service
(Econ. 35); or
Commercial Relations (Econ. 31)
American Diplomacy (Pol. Sci. 7)
Commercial Law (Law B)
Seminar (Econ. 18)

Suggested Electives
Hist, of Latin America and the
Philippines (Hist, 27)
Advanced Econ, Hist, of U. S.
(Econ, 14)
Civil War and Reconstruction
(Hist, 15)

# Course in Journalism

#### FIRST YEAR

FIRST SEMESTER Foreign language Foreign language Rhetoric (Rhet. 1) Military (Mil. 2) Physical Training (P. T. 1 and 1a) European History (Hist. 1) Engl. Literature (Engl. 1)

SECOND SEMESTER Foreign language Rhetoric (Rhet. 1)
Military (Mil. 1, 2)
Physical Training (P. T. 1)
European Hist. (Hist. 1)
Engl. Literature (Engl. 2)

#### SECOND YEAR

FIRST SEMESTER Rhetoric (Rhet. 3 or 20) Principles of Economics (Econ. 1) Amer. Fed'l Gov't (Pol. Sci. 1) Military (Mil. 2) Science

SECOND SEMESTER Rhetoric (Rhet, 3 or 20) Money and Banking (Econ. 3) Amer. State Gov't (Pol. Sci. 3) Military (Mil. 2) Business Writing (Rhet. 10) Science

#### THIRD YEAR

FIRST SEMESTER Newspaper Writing (Rhet. 12) History of U. S. (Hist. 3) Fed'l Constitution (Pol. Sci. 5) Psychology (Psychol. 1)
Corporation Management
(Econ. 10); or
Domestic Commerce (Econ. 28)
English Literature

SECOND SEMESTER Newspaper Writing (Rhet. 12) History of U. S. (Hist. 3) Psychology (Psychol. 2) Indus. Consolid. (Econ. 11); or Foreign Commerce (Econ. 29) English Literature

#### FOURTH YEAR

FIRST SEMESTER Advanced Newsp, Writ. (Rhet. 15) Pol. and Soc. Ethics (Phil. 9) General Sociology (Sociol. 1) Labor Problems (Econ. 12) or Public Finance (Econ. 5) International Law (Pol. Sci. 6) British Gov't (Pol. Sci. 2a) Municipal Gov't (Pol. Sci. 4)

SECOND SEMESTER Advanced Newsp. Writ. (Rhet. 15) Social Reform (Econ. 21) Social Control (Sociol. 2) Labor Problems (Econ. 12); or American History (Hist. 15); or Charlties and Corrections (Sociol. 5) or Europe in 19th Cent. (Hist. 20) American Diplomacy (Pol. Sci. 7)

# HOUSEHOLD SCIENCE AND ADMINISTRATION

Students who hold scholarships in household science must make this subject their major, and take each semester at least four hours in household science or in subjects required for admission to the household science courses. The suggested course in household administration is described below. Household science students who do not take that course must meet the following requirements:

First Semester: Physical Training 7, Physiology 6, Rhetoric 1, foreign language, Chemistry 1, Household Science 2.

Second Semester: Physical Training 7, Rhetoric 1, foreign language, Household Science 1, Chemistry 2 and 3.

They must then elect in regular course and must finish by the end of the junior year:

Botany 5, Chemistry 13a, 9, and 9c, and an additional five hours in botany and zoology.

In order to graduate, household science students must also secure credit for Art and Design 1, Architecture 41 (Color Problems), Architecture 29a and 29b (History of Architecture), and Economics 1, and must satisfy the requirements for graduation in the College of Literature and Arts, in so far as these are not covered by the courses above mentioned.

# Suggested Course in Household Administration

#### FIRST YEAR

FIRST SEMESTER
Rhetoric and Themes (Rhet. 1)
Free Hand Drawing (Art & Design 1)
Home Architecture and Sanitation (H. Sci. 2)
Foreign language
Physical Training (P. T. 7)
Hygiene (P. T. 9)
Engl. Lit. before the 19th Cent.

SECOND SEMESTER
Rhetoric and Themes (Rhet. 1)
Applied Design (Art & Design 12)
Foreign language
Physical Training (P. T. 7 and 9)
Introductory Zoology (Zool. 10)

#### SECOND YEAR

FIRST SEMESTER
Color Problems (Arch. 41)
Short History of Architecture
(Arch. 29a)
Foreign language; or
History 4; or
Textiles (H. Sci. 7)
Inorganic Chemistry (Chem. 1)

(Engl. 1)

SECOND SEMESTER
Foreign language or History
(continued)
Principles of the Selection and
Preparation of Food (H. Scl. 1)
History of the U. S. (Hist. 3)

Suggested Electives
Inorganic Chemistry (Chem. 2)
Qualitative Analysis (Chem. 3)
History
Modern Philosophy (Phil, 4)
Vertebrate Anatomy (Zool. 2)

# THIRD YEAR

FIRST SEMESTER
Economic Uses of Food (H. Sci. 6)
Elementary Psychology (Psych. 1)
Physiology 4 (Minor Course)
Economics 1

SECOND SEMESTER

Dietetics (H. Scl. 5)
Elementary Home Decoration
(H. Scl. 3)
Household Art and Clothing
(H. Scl. 12)
Elementary Psychology (Psych. 2)
Economics of the Family
(H. Scl. 15)

### FOURTH YEAR

FIRST SEMESTER Household Management Household Management
(H. Sci. 10)
History of Home Economics
(H. Sci. 13)
Principles of Accounting (Acc'y 1)
Economics of the Family
(H. Sci. 16)
(H. Sci. 16)
(H. Sci. 16) Sociology 1

Suggested Electives Sanitary Analysis (Chem. 10a) Principles of Education (Edu. 1) Comparative and Genetic Sociology (Sociol. 3)
Vertebrate Embryology (Zool. 3)
Esthetics (Philosophy 8)

SECOND SEMESTER Principles of Accounting (Acc'y 1) Commercial Law (Law B) Economics of the Family, continued (H. Sci. 16)

Suggested Electives History and Criticism of Art (Architecture 29b) Food Analysis (Chem. 5c) Social Phases of Education (Edu. 16) Charities, Corrections, and Urban Problems (Sociol. 5)
Physiological Psychology (Psych. 9)
Vertebrate Embryology (Zool. 6)

# COURSE PRELIMINARY TO LAW

It is recognized by the best authorities on legal education that professional studies in law should be preceded by a thorough course of liberal training in the humanities and the sciences. As a foundation for the study and practice of law, the following subjects offered by this College are of special importance: English, with special reference to composition and public speaking; Latin and French; logic; constitutional and political history; political science; economics; sociology. An outline of a course preliminary to law is given below, page 149.

By the proper selection of his studies it is possible for a prospective law student to take both his degree in arts and his degree in law in six years; and a strong student may be able to take his bachelor's degree in arts at the close of his first year in the College of Law. The following courses in the College of Law, not exceeding a total of 17 hours, may be counted for the degree of bachelor of arts: Law 1 (Contracts); Law 2 (Torts); Law 3 (Real Property); Law 6 (Personal Property). Some of these courses, not exceeding 9 hours, may, by special permission of the Dean, be taken in the junior year. If the student is also a candidate for the degree of LL.B., he should in his fourth year register in the College of Law and pay the usual fee of that College. Students are not permitted to take this law work until their junior year. A fee of five dollars is charged for every law subject taken by students who do not pay the regular law school fee. Students admitted to this University from other institutions may count these law courses for the degree of A.B.

<sup>\*</sup>Household Science 16 consists of problems in the economics of the family. See Economics 18.

only on condition of completing at least 30 hours' work in residence in subjects offered by the Faculty of the College of Literature and Arts.

In the course outlined below the subjects specifically prescribed for graduation in the College of Literature and Arts are indicated by italics. In general the subjects listed are suggested only and not prescribed. Not more than eighteen hours should be taken in anv semester.

# Course Preliminary to Law

### FIRST YEAR

#### FIRST SEMESTER

Military 2 Physical Training 1 and 1a Rhetoric 1 Foreign language Continental European History (Hlst. 1)

SECOND SEMESTER

Military 1 and 2 Physical Training 1 Rhetoric 1 Foreign language Continental European History (Hist. 1)

#### SECOND YEAR

# FIRST SEMESTER

Military 2 Amer, Government (Pol. Sci. 1) Hist, of U. S. to 1789 (Hist. 3) Principles of Economics (Econ.1) Foreign language Psychology Psychology 1 Public Speaking (Rhet, 7) Engl. Lit. before Nineteenth Cen-tury (Engl. 1) Logic (Phil. 1a) Amer. Literature (Engl. 16)

# SECOND SEMESTER

Military 2 Amer. State Gov't (Pol. Sci. 3) Hist. of U. S. after 1789 (Hist. 3) Money and Banking (Econ. 3) Money and Balang (Money and Foreign language Public Speaking (Rhetoric 7) Engl. Literature in Nineteenth Century (Engl. 2)

Amer. Literature (English 16) History of Europe in Nineteenth Century (Hist. 20)

#### THIRD YEAR

FIRST SEMESTER Constitutional Hist, England (Hist. 4) Intercollegiate Debating (Rhet. 13) Intercollegiate Debating (Rhet. 13) Corporation Management (Econ. 10) Principles of Accounting (Acc'y 1) Federal Constitution (Hist. 14) Municipal Government (Pol. Scl. 4) English literature. 3 hours Public Finance (Econ. 5) Hist. of Illinois (Hist. 17) Sociology (Sociol. 1)

SECOND SEMESTER Constitutional Hist, England (Hist. 4) Intercollegiate Debating (Rhet. 13) Industrial Consolidations (Econ. 11) Principles of Accounting (Acc'y 1) English literature, 3 hours Administrative Law (Pol. Sci. 10) Charities and Corrections
(Sociol. 5)
Elements of Jurisprudence
(Pol. Sci. 9)

#### FOURTH YEAR

# FIRST SEMESTER

Contracts (Law 1)
Torts (Law 2)
Personal Property (Law 6)
International Law (Pol. Sci. 6)
Labor Problems (Econ. 12)
Ry Organ and Hist (Econ. 41)
Economies of Insurance (Econ. 33) Financial Hist. of U. S. (Econ. 4)

### SECOND SEMESTER

Contracts (Law 1)
Torts (Law 2)
Torts (Law 2)
Real Property (Law 3)
Railway Administration (Econ. 42)
Political and Social Ethics (Phil. 9)
Hist, of Civil War and Reconstruction Periods (Hist. 15)

#### COMBINED ARTS AND ENGINEERING COURSE

A graduate of the College of Literature and Arts, whose mathematical training includes the work of the calculus, who has had the usual college course in physics, and sufficient training in the principles of mechanics to enable him to begin the mechanics of the junior year, may receive the degree of Bachelor of Science in the departments of the College of Engineering upon the completion of sixty-eight credit hours in such lines (including thesis) as may be directed by the faculty. This work may ordinarily be done in two academic years. Candidates for the degree in the department of architecture are not required to be prepared in calculus or mechanics, but should possess special preparation in drawing. The courses in the College of Engineering which may be counted for the degree of A.B. are listed on page 136 above.

### HONORS

The general regulations regarding University honors are stated above, p. 106. At the close of each year it is customary in this College to prepare a list of those members of the freshman class who have made an especially good record in scholarship. The names of such students are announced at an assembly of the College; notice is also sent in each case to the parent or guardian, and to the principal of the high school of which the student is a graduate.

# HONORARY SOCIETIES

Phi Beta Kappa Society.—Each year a certain number of the ranking students of the senior class are elected to membership in the Phi Beta Kappa Society. The number is ordinarily limited to one-fifth of the total membership of the graduating class.

# PHI BETA KAPPA PRIZE

Gamma of Illinois chapter of Phi Beta Kappa offers annually a prize of \$25.00 to that member of Gamma Chapter who at his graduation from the College of Literature and Arts gives evidence of greatest promise as a scholar in the domain of the liberal arts. The award is based on the following considerations: (a) Class room records; (b) other literary and scholarly activities in the University; (c) an essay, which may be a senior thesis or a term paper. At the discretion of the committee in charge, the award may be withheld if

none of the essays appears worthy of the prize. Essays submitted in competition and all correspondence with reference to this prize should be addressed to the Secretary of the Phi Beta Kappa Society, University of Illinois.

Sigma Xi.—Members of the senior class in the College of Literature and Arts who give "promise of marked ability" in scientific investigations are also eligible to membership in the Sigma Xi Society, which was founded to encourage research in pure and applied science.

Delta Sigma Rho.—This is a national honorary fraternity the membership of which is confined to university and college debaters and orators.

Delta Kappa Chi.—This is an honorary business fraternity, the members of which are selected on the basis of high scholarship and the possession of those qualities which promise success in business life. Six juniors are elected at the end of the first semester and four more at the end of the year.

Kappa Delta Pi.—This society is composed of ranking students who have pledged themselves to professional educational work. Only members of the junior and senior classes are eligible to membership.

# THE COLLEGE OF SCIENCE

For a description of the buildings used by this College, see p. 63; for collections belonging to it (botany, zoology, and geology), see p. 71; for a summary of its courses, see p. 79; for clubs and societies auxiliary to its courses of study, see p. 113; for fees, see p. 121.

#### PURPOSES

The College of Science offers two distinct groups of courses. The purpose of the first group is to furnish a well balanced general education as a preparation either for distinctly professional studies, for teaching, or for business life. These courses require major work in at least one branch of science, but also require work in some foreign language and in other literary or philosophical subjects. The courses of this group lead to the degree of Bachelor of Arts.

<sup>&</sup>lt;sup>1</sup>For list of Majors, see p. 154.

The courses of the second group are more technical in character and are designed to prepare students for a professional career of a specific character. In these courses but little opportunity for elective studies can be offered. Upon completion of the course the degree of Bachelor of Science, usually with a special designation, is given.

A portion of the work of a student registering in this College may be selected, in accordance with the provisions described in the following pages, from the offerings of the other colleges or schools of the University.

# ADMISSION

See the general statement of the entrance requirements of the University, p. 83.

# SPECIAL STUDENTS

See the statement of the general University regulations in regard to special students, p. 102.

# COURSES LEADING TO THE A.B. DEGREE

The courses of study leading ordinarily to the degree of Bachelor of Arts are the General Course in Science and the Six-Year Medical Course. Attention is called also to the combined course in Science and Engineering. A similar combination can be made in Science and Agriculture.

#### GENERAL COURSE IN SCIENCE

To graduate from a general course in science the following requirements must be fulfilled:

- 1. The student must complete the work indicated in the prescribed list, except that physics and chemistry will not be required of students who have had one-year courses in these subjects in an accredited high school or acceptable equivalent courses elsewhere.
- 2. There must be obtained from the five groups of electives the number of hours' credit mentioned under each group. The physics and chemistry of the prescribed list may be applied on the requirements of Groups 1 and 2. Students who have had three years of work in foreign language in an accredited high school, or an equivalent course elsewhere, will be relieved from the requirement of

- Group 4. Those who have had one year or two years of high school language may be relieved from 4 hours or 8 hours respectively of the requirement of Group 4. No credit is given for a part of the first university year of any language.
- 3. A total credit of at least 20 hours must be secured in some one of the divisions of the major elective list. Not more than 40 hours', work (exclusive of thesis) in any one of these divisions may be applied toward graduation. In arranging the subjects to be counted toward the major requirement the student is advised to consult with the head of the department in which the major is taken.
- 4. The student must secure enough additional credits from the general elective list to complete the graduation requirement of 130 hours.

# GENERAL CLASSIFICATION OF SUBJECTS

### PRESCRIBED LIST

Chemistry 1 Physics 2a, 2b (or 1, 3) Rhetoric 1 Military Science 1, 2 Physical Training-Men, 1, 3 Women, 7, 9

#### GROUP ELECTIVES

Group 1. 10 hours required Mathematics Physics Astronomy

Group 2. 10 hours required.

Chemistry Geology Household science

Bacteriology (Botany 5)

Group 3. 10 hours required Botany

Zoology Physiology Psychology Entomology

Group 4. 16 hours required

Foreign language

Group 5. 8 hours required

English literature

History

Political science

Economics

Philosophy

Education

#### MAJOR ELECTIVES

Astronomy

Botany

Chemistry

Education

Geology (including mineralogy and physical geography)

Household science

Library science

Mathematics

Physics

Physiology

Psychology

Zoology (including entomology)

#### GENERAL ELECTIVES

The subjects which may be taken as general electives include not only the branches taught by the departments of this College, but those offered by the other colleges and schools of the University. Courses in history, economics, languages, literature, and philosophy, taught in the College of Literature and Arts; those in agronomy, animal husbandry, and horticulture, taught in the College of Agriculture; and certain courses taught in the College of Engineering and in the Library School afford abundant material from which elections may be made.

Approximately one-third of the work to be counted toward graduation may be selected, subject to the approval of the Dean, from the subjects taught in other colleges of the University, if the student so desires.

# THESIS

A thesis course may be taken in any department (subject to the approval of the head thereof) in which the student has done 20 hours of major work preceding his senior year. Students desiring to take a thesis course in geology or mineralogy may add to their credits in

those subjects the credits received for chemistry; and students in physiology may add to their credits in that subject those in zoology and bacteriology. Only students graduating with a thesis will, as a rule, be selected for fellowships, scholarships, and other similar university honors. Candidates for special honors are required by the general university regulations to write a thesis.

# PROSPECTUS OF COURSE OF INSTRUCTION

# FIRST YEAR

Fifteen to eighteen hours a week, including military and physical training, must be chosen each semester.

Military science and tactics are required of all male students. Drill extends through the freshman and sophomore years, and tactics through the second semester of the freshman year.

Physical training is required of all freshmen, men and women, two hours for men and three hours for women.

The following subjects are open to freshmen:

#### FIRST SEMESTER

Prescribed Subjects: Chemistry 1; Rhetoric 1; Military 2; Physical Training 1 and 3, for men, 7 and 9 (Physiology 6), for women.

Group 1: Astronomy 1; Mathematics 2, 4.

Group 2: Chemistry 1a, Chemistry 3 (for those who have had Chemistry 1 or its equivalent); Geology 1, 3, 14; Household Science 2.

Group 3: Botany, 2, 4, 11; Entomology 1; Physiology 4; Zoology 10.

Group 4: French 1; German 1, 4 (for those offering two units for entrance); Greek 1, 3, 5, 7; Latin 1 (for those offering three units for entrance); Spanish 1.

Group 5: Economics 7, 26; English 1; History 1.

General Electives: See statement on page 154.

### SECOND SEMESTER

Prescribed Subjects: Rhetoric 1; Military 1, 2; Physical Training 1 and 1a, for men, 7 and 9 (Physiology 6), for women.

Group 1: Astronomy 4; Mathematics 3a, 6.

Group 2: Chemistry 1, 1a, 2, 3, and 13a (after Chemistry 2 and 3); Geology 1a, 6, 8, 10; Household Science 1.

Group 3: Botany 1, 16, 17; Entomology 1, 3; Zoology 2, 10, 17b.

<sup>&</sup>lt;sup>1</sup>See page 152, requirement 1.

Group 4: French 1; German 3, 5, 6 (after German 4); Greek 1, 4, 6, 8; Latin 1; Spanish 1.

Group 5: Economics 22, 26; English 2; History 1, 11. General Electives: See statement on page 154.

# HOUSEHOLD SCIENCE

The courses of instruction given in this department are planned to meet the needs of three classes of students, viz.: (a) those students who specialize in other lines of work, but desire a knowledge of the general principles and facts of household science; (b) those students who wish to make a specialty of household science for the purpose of teaching the subject in secondary schools and colleges; (c) those students who wish some knowledge of the principles underlying the work of dietitians.

Students holding scholarships in household science must elect that subject as a major, and must take, throughout the four years, continuous work in the department of household science or in subjects required for admission to the courses of that department.

For the convenience of such students the following outline is given, suggesting the proper sequence of subjects:

# FIRST YEAR

- 1. Chemistry 1; Household Science 2; Zoology 10; Art and Design 1; Rhetoric 1; Physical Training 7 and 9.
- 2. Household Science 1; Chemistry 2 and 3; Rhetoric 1; Mathematics 4; Physical Training 7.

# SECOND YEAR

- 1. Chemistry 13a; Household Science 2, 6, 7; Art and Design 1; English 1.
- 2. Chemistry 9 and 9c; Botany 5; Household Science 12; English 2.

# THIRD YEAR

- Economics 1; Household Science 13; Physics 2a; Physiology
   Architecture 29a and 29b.
  - 2. Household Science 3, 5; Sociology 5; Psychology 2.

### FOURTH YEAR

Household Science 4, 9, 10, 11; Education 1.

In order to graduate the student must also satisfy the other requirements for graduation in the general course in science. Students not holding scholarships in household science may make that subject a major by meeting the general requirements concerning majors.

# LIBRARY SCIENCE

Library Science has been added to the list of major electives to meet the needs of those who are preparing for positions in scientific libraries, but are unable to complete the course as outlined in the Library School.

# PREPARATION OF SCIENCE TEACHERS

To graduate with a preparation for the teaching of science in the secondary schools, the student must meet the requirements of the general science course, choosing his major in that group containing the subjects which he wishes especially to teach, and adding Education 1, 3, and 7, Psychology 1, Philosophy 1, and at least four hours more in education or psychology.

As to the amount and the character of the work which should be taken in the major subject and those allied to it, the student should consult with the head of the department in which the principal work is taken. See also the circular of the School of Education.

# COURSE IN SCIENCE AND ENGINEERING

A graduate of the College of Science whose mathematical training includes the work of the calculus, who has had the usual college course in physics, and sufficient training in the principles of mechanics to enable him to begin the mechanics of the junior year, may receive the degree of Bachelor of Science in the departments of the College of Engineering upon the completion of 68 semester hours in such lines (including thesis) as may be directed by the faculty. This work may ordinarily be done in two academic years. Candidates for the degree in the Department of Architecture are not required to be prepared in calculus or mechanics, but should possess special preparation in drawing.

### SIX-YEAR MEDICAL COURSE

In addition to the usual four-year medical course, described in the University catalog, the University offers a six-year continuous course in general science and medicine. This course leads to the degree of Bachelor of Arts upon the completion of four years' work. and to the degree of Doctor of Medicine at the end of the six-year course. It includes everything contained in the four-year medical course, and in addition enables the student to go more deeply than would otherwise be possible into the fundamental sciences upon which medical studies are based.

Students who wish so to combine their work in general science with their professional studies in medicine as to receive both degrees may accomplish this purpose by pursuing at the University in Urbana the three years' work described below, including a year of medical studies, and then continuing their medical work in the College of Medicine in Chicago.

# Six-Year Medical Course FIRST YEAR

SECOND SEMESTER

FIRST SEMESTER

General Chemistry (Chem. 1). 5 Rhetoric and Themes (Rhet. 1). 3 Military (Mil. 2)	Descrip, Inorg. Chem. (Chem. 2) 2 Qualitative Analysis (Chem. 3) 3 Rhetoric 1
Trigonometry (Math. 4) 2 Zoology 10	Physical Training. 1 Zoology 2. 5 Total 16
SECOND	YEAR
FIRST SEMESTER  German 1 or 4, or Latin² 4 Zoology 3 3 Quantitative Analysis (Chem. 5a) 5 Military 2 1 Physics 2a, 2b. 4 Total 17	SECOND SEMESTER   S. H.
THIRD	YEAR
FIRST SEMESTER S. H. German 4	SECOND SEMESTER   S.H.

<sup>&</sup>lt;sup>1</sup>Semester hours. For definition see p. 134, <sup>2</sup>If Latin has not been offered for entrance.

### FOURTH YEAR

Students who can afford it would do well to spend a fourth year in continuing this course. For such students no studies are prescribed—each is given free choice in selecting what he needs to round out his general education, or to prepare to specialize in some line of his future work. Upon the completion of this fourth year, the student takes his baccalaureate degree before going to the College of Medicine.

Students who complete the three years of prescribed work at the University, together with electives sufficient to amount to 97 credit hours, will be given the degree of Bachelor of Arts at the commencement next following the completion at the Medical College of the work in human anatomy, physiology of the special senses and of the nervous system, therapeutics, general pathology, pathological anatomy, and surgical pathology (virtually one year's work).

The following subjects included in the above prospectus also count toward the medical degree: chemistry (general organic, qualitative and quantitative analysis, and toxicology), biology (zoology), physiology, physiological chemistry, normal histology, embryology, and bacteriology.

Upon the satisfactory completion of the remaining three years of the medical course the University will confer the degree of Doctor of Medicine.

# COURSES LEADING TO THE B. S. DEGREE

The following courses of instruction in this College lead ordinarily to the degree of Bachelor of Science.

### COURSE IN CERAMICS

To graduate in ceramics the students must follow one of the courses outlined below. The conditions are such that but little election can be allowed.

Special courses will be arranged for those who wish a limited amount of work in ceramics, but those pursuing them will not be entitled to a degree and will not be recognized as graduates.

# Course in Ceramics

# FIRST YEAR

FIRST SEMESTER	SECOND SEMESTER
S. H. *	R. H.*   Inorganic Chemistry (Chem. 2). 2   Qualitative Analysis (Chem. 2). 3   Rhetoric 1
SECOND	YEAR
FIRST SEMESTER	SECOND SEMESTER
Quantitative Analysis (Chem. 5a)       4         Physics 1 and 3	Silicate Analysis (Chem. 5b)5 Physics 1 and 34 Descriptive Geometry (G. E. D. 2) 3 Classification of Clays (Cer. 1)3 Military Drill (Mil. 2)1
Total 18	Total
munn.	
THIRD FIRST SUMPSTER	
FIRST SEMESTER S. H.  German 4 or French 2	SECOND SEMESTER   S. H.
FIRST SEMESTER S. H.  German 4 or French 2	SECOND SEMESTER   S. H.
FIRST SEMESTER S. H.  German 4 or French 2	SECOND SEMESTER   S. H.

Those desiring to specialize in the subject of cement take Ceramics 10 in place of Ceramics 12 (3d year, II). In the fourth year they take Ceramics 13, I (3) and Ceramics 14, II (3).

Those wishing to specialize along the line of glass technology replace Ceramics 12 (3d year, II) by Ceramics 8. In the fourth year they take Ceramics 15, I (3) and Ceramics 16, II (3).

<sup>\*</sup>Semester hours, For definition see p. 134.

# Course In Ceramic Engineering

	YEAR
FIRST SEMESTER S. H.*	SECOND SEMESTER S. II.*
Inorganic Chemistry (Chem. 1). 5	Inorganic Chemistry (Chem. 2). 2   Qualitative Analysis (Chem. 3). 3   Analytical Geometry (Math. 6). 5   German 6 or French. 2   4   Shop Practice (M. E. 1). 2   Drill Regulations (Mil. 1). 1   Gymnasium (Phys. Tr. 1). 1   Total. 18
FIRST SEMESTER SECOND	SECOND SEMESTER
Quantitative Analysis (Chem. 5a)       4         Physics 1 & 3       5         Calculus (Math. 7)       5         Gen. Eng. Drawing 1       3         Military Drill (Mil. 2)       1         Total       18	Silicate Analysis (Chem. 5b)5 Physics 1 & 3
	Total
THIRD	YEAR
FIRST SEMESTER S. H. Heat (Physics 16)	SECOND SEMESTER  Mechanics (T. & A. M. 7)
Geology 1	Rhetoric 1 3
T-4-1 10	Total 17
Total18	Total 17

# COURSE IN CHEMISTRY

A student may pursue a course in general science having chemistry as a major subject by conforming to the group requirements as outlined on page 152. Upon the completion of the course the candidate is granted the degree of Bachelor of Arts.

Total ......18

<sup>\*</sup> Semester hours. For definition see page 134,

For the more specialized training of the chemist the following course, largely prescribed, has been arranged. It leads to the degree of Bachelor of Science in chemistry.

Preliminary preparation in German equivalent to two years of high school work or one year of university work is advised. Students who are unable to offer this may take German 1 and 3 in the freshman year, but will be required to take German 4 and 5 or 6 in place of other electives.

# Course in Chemistry

FIRST	YEAR
First Semester   S.H.*	Analytical Geometry (Math. 6). 5 Descriptive Inorganic Chemistry (Chem. 2). Analysis (Chem. 3). 3 German 5 or 6 Military (Mil. 2)
SECOND   SECOND     SECOND     SECOND     SECOND   SECOND     SECOND   SE	
THIRD   THIRD	YEAR
FIRST SEMESTER Seminar (Chem. 93)	SECOND SEMESTER  Seminar (Chem. 93)

<sup>\*</sup> Semester hours. For definition see page 134.

The electives of the junior year and ten hours of the electives of the senior year must be taken elsewhere than in the chemistry department. Some biological subject, philosophy, history, and economies are recommended.

### COURSE IN CHEMICAL ENGINEERING

The work of the technical chemist or superintendent is frequently so closely associated with mechanical and other engineering lines as to make a knowledge of these subjects essential. To meet these conditions, the following four-year course in chemistry and related engineering subjects has been arranged. The degree given is that of Bachelor of Science in chemical engineering.

Preliminary preparation in German equivalent to two years of high school or one year of University work is prescribed. It is also advised that students intending to take this course be prepared to offer mechanical drawing and manual training for entrance.

Where this preliminary training is lacking, students are advised, if possible, to register in shop work and general engineering drawing during the early years of their course.

# Course in Chemical Engineering

### FIRST YEAR

FIRST SEMESTER S. H.*	SECOND SEMESTER S. H.*
General Elementary Chemistry   C(hem. 1)   5   5   7   7   7   7   7   7   7   7	Analytical Geometry (Math. 6). 5 Descriptive Inorganic Chemistry (Chem. 2). 2 Germative Analysis (Chem. 3). 3 Germative Analysis (Chem. 3). 4 Military (Mil. 2). 1 Drill Regulations (Mil. 1). 1 Gymnasium (Phys. Tr.). 1 Total. 17

#### SECOND VEAR

bilconi,	111111
FIRST SEMESTER	SECOND SEMESTER S. H.
S. H. Differential and Integral Calcu-	Analytical Mech. (T. & A. M. 7) 3
lus (Math. 8a)	Advanced Analytical Chemistry
Ouantitative Anal. (Chem. 5a) 5	(Chem. 5b)5
Physics 1, 3 5	Rhetoric 1 3
Rhetoric 1 3	Physics 1, 3 4
Military (Mil. 2) 1	Military (Mil. 2) 1
Total	Total16

<sup>\*</sup> Semester hours. For definition see page 134.

THIRD	YEAR
FIRST SEMESTER	SECOND SEMESTER
S. H.	S. H.
Gas and Fuel Anal. (Chem. 65) 2	Inorganic Preparation (Chem. 61) 2
Mineralogy (Geol. 5) 5	Physical Chem. (Chem. 31, 33). 5
Analytical Mech. (T. & A. M.	Organic Chem. (Chem. 14, 9b), 5
8) 2½	Chem. Technology (Chem. 6) 2
Resistance of Materials (T. &	Steam Engines and Boilers
A. M. 9)	(M. E. 11) 3
Organic Chem. (Chem. 14, 9a) 5	Seminar (Chem. 93) 1
	Seminar (Chem. 55)
Seminar (Chem. 93) 1	
	Total
Total19	
FOURTH	VEAR
FIRST SEMESTER	SECOND SEMESTER
S. H.	S. H.
Assaying (Chem. 69)	Electives in chemistry 3
Electro-chemistry (Chem. 35) 3	Thesis (Chem. 11) 5
Economics philosophy or coving	Mach Eng Lab (M E 19)
Economics, philosophy or equiva-	Mech. Eng. Lab. (M. E. 13) 3
lent 3	Seminar (Chem. 93) 1
Metallurgy (Chem. 7)	Economics or philosophy 3
Thesis (Chem. 11) 5	and the particular particular of
Comings (Chem 02)	Total
Seminar (Chem. 93) 1	Total
Total 10	

### HONORS

Preliminary Honors are assigned on the completion of the sophomore year, on the basis of the scholarship of the student during the freshman and sophomore years. A failure disqualifies a student for receiving these honors.

Final Honors are assigned on graduation. The basis for the assignment is the scholarship of the student during the junior and senior years. A failure received in the junior or senior year disqualifies a student for receiving final honors.

Special Honors are awarded at the close of the senior year. Special honors are planned for especially brilliant students who prefer to concentrate their efforts upon a special course. A student may be a recipient of both final and special honors. No student is eligible for special honors, who, during his senior year, has received a grade of less than eighty-five per cent in any subject.

The names of all students receiving honors appear in the University catalog.

### HONORARY SOCIETIES

Sigma Xi.—Membership in this honorary society is open to students in the College of Science. Selections are made from the senior class; the number elected may not exceed one-fifth of the total number graduating from the College. Qualification for membership, while taking account of scholarship, is primarily based upon evidence of positive ability to carry on investigational work.

Phi Lambda Upsilon is an honorary chemical society, membership in which is based primarily upon scholarship.

# THE COLLEGE OF ENGINEERING

# FACULTY

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

WILLIAM FREEMAN MYRICK GOSS, M.S., D.ENG., DEAN WILLIAM THOMAS BAWDEN, A.B., B.S., ASSISTANT DEAN

# In Architecture-

-Frederick Maynard Mann, M.S., C.E., Professor

NATHAN CLIFFORD RICKER, D.Arch., Professor

Newton Alonzo Wells, M.P., Professor, Architectural Decoration.

James McLaren White, B.S., Professor, Architectural Engineering

DAVID VARON, A.D.G.F., Assistant Professor, Architectural Design

CHARLES RICHARD CLARK, B.S., Associate, Architectural Construction

RUDOLPH WEAVER, Instructor

JAMES HUTCHISON FORSYTHE, B.S., Instructor

ROY CHILDS JONES, B.S., Instructor

# In Civil Engineering-

IRA OSBORN BAKER, C.E., D.Eng., Professor

JOHN PASCAL BROOKS, M.S., Associate Professor

FRANK OLIVER DUFOUR, C.E., Assistant Professor, Structural Engineering

Charles Wesley Malcom, C.E., Assistant Professor, Structural Engineering

CARROLL CARSON WILEY, B.S., Instructor

JOHN JEFFERSON RICHEY, B.S., Instructor

JAMES ELMO SMITH, C.E., Instructor

GEORGE WELLINGTON PICKELS, JR., B.C.E., Instructor

ARCHIE REED ALGER, B.S., Instructor

NEAL BRYANT GARVER, B.S., Instructor

GEORGE INNES GAY, B.S., Instructor
WILLIAM HORACE RAYNER, B.S., Instructor
JEROME GOODSPEED VAN ZANDT, C.E., Instructor
JOHN STROM, B.S., Assistant

In Electrical Engineering-

ERNEST JULIUS BERG, Ph.D., D.Sc., Professor
MORGAN BROOKS, Ph.B., M.E., Professor
ELLERY BURTON PAINE, M.S., E.E., Assistant Professor
EDWARD HARDENBERGH WALDO, A.B., M.E., Assistant Professor
JOHN MYRON BRYANT, E.E., Assistant Professor
FRANK GARDNER WILSON, B.S., Instructor
HARRY GRAY HAKE, B.S., Instructor
LEONARD VAUGHAN JAMES, B.S., Instructor
IRA WILLIAM FISK, B.S., Assistant
HERBERT MICHAEL TURNER, B.S., Assistant

In Mechanical Engineering-

\*George Alfred Goodenough, M.E., Associate Professor
OSCAR ADOLPH LEUTWILER, M.E., Assistant Professor, Machine
Design

JOHN McBeath Snodgrass, B.S., Assistant Professor, Steam Engineering

DAVID LEONARD SCROGGIN, Instructor, Machine Shop EDGAR THOMAS LANHAM, Instructor, Forge Shop

FREDERICK ELLIS, Instructor, Wood Shop

HARRY FREDERICK GODEKE, B.S., Instructor

WILLIAM VAN DUNKIN, M.E., Instructor, Machine Design

HENRY BERNHARD DIRKS, B.S., M.E., Instructor

PAUL WRIGHT GAWNE, B.S., Instructor, Wood Shop and Foundry

ROBERT EDWIN KENNEDY, Instructor, Foundry ALVIN LOUIS SCHALLER, B.S., Instructor

ALONZO PLUMSTED KRATZ, M.S., Instructor

PERRY JOHN FREEMAN, B.S., Instructor, Machine Construction

JAMES MERION DUNCAN, Assistant, Wood Shop

WILLIAM CLARENCE BRADFORD, Assistant, Machine Shop

LOMA WILLIAM GOBEN, Assistant, Machine Shop

PETER JOSEPH REBMAN, Assistant, Forge Shop

In Mining Engineering-

HARRY HARKNESS STOEK, B.S., E.M., Professor CARL STANTON STEVENSON, E.M., Instructor

<sup>\*</sup> Acting head of the department for the college year.

- In Municipal and Sanitary Engineering and Theoretical and Applied

  Mechanics—
  - ARTHUR NEWELL TALBOT, C.E., Professor, Municipal and Sanitary Engineering; in charge of Theoretical and Applied Mechanics

MELVIN LORENIUS ENGER, B.S., Associate, Theoretical and Applied Mechanics

GEORGE CONRAD HABERMEYER, B.S., Associate, Municipal and Sanitary Engineering

HARVEY ELLISON MURDOCK, M.E., Instructor, Theoretical and Applied Mechanics

VIRGIL R FLEMING, B.S., Instructor, Applied Mechanics

CLARENCE EUGENE NOERENBERG, A.E., Instructor, Theoretical and Applied Mechanics

FRED B SEELY, B.S. Instructor, Theoretical and Applied Mechanics

George Paul Boomsliter, B.S., Instructor, Theoretical and  $Applied\ Mechanics$ 

HARRISON FREDERICK GONNERMAN, B.S., Instructor, Theoretical and Applied Mechanics

NEWTON EDWARD ENSIGN, A.B., Instructor, Theoretical and Applied Mechanics

STANLEY PRINCE FARWELL, M.S., Instructor, Theoretical and  $Applied\ Mechanics$ 

# In Physics-

ALBERT PRUDEN CARMAN, D.Sc., Professor

CHARLES TOBIAS KNIPP, Ph.D., Assistant Professor (on leave)

FLOYD ROWE WATSON, Ph.D., Assistant Professor

WILLIAM FREDERICK SCHULZ, E.E. Ph.D., Assistant Professor

JAKOB KUNZ, Ph.D., Assistant Professor

WALDEMAR MATTHAEUS STEMPEL, A.M., Instructor

Thomas Smith Taylor, Ph.D., Instructor

ELMER HOWARD WILLIAMS, A.M., Ph.D., Instructor

JAY WALTER WOODROW, B.A., Instructor

JACOB GARRETT KEMP, A.B., Assistant

WILLIAM HENRY HYSLOP, A.B., Part-time Assistant

ORRIN HAROLD SMITH, A.M., Assistant

LLOYD THEODORE JONES, A.M., Part-time Assistant

# In Railway Engineering-

WILLIAM FREEMAN MYRICK GOSS, M.S., D.Eng., Director EDWARD CHARLES SCHMIDT, M.E., Professor

[1910-11

Albert St. John Williamson, M.E., Instructor, Railway Mechanical Engineering

HARRY COLE KENDALL, B.S., Instructor, Railway Electrical Engineering

Francis Seeley Foote, Jr., E.M., Instructor, Railway Civil Engineering

In General Engineering Drawing—
Harvey Willard Miller, B.S., Instructor
Francis Marion Porter, B.S., Instructor
Robert Kent Steward, B.S., Instructor
James Charles Lund, B.S., Assistant
Irwin Glenn Ferguson, B.S., Assistant

For a description of the buildings used by this College, see p. 65; for collections belonging to it (architecture, civil engineering, electrical engineering, and mechanical engineering), see p. 73; for clubs and societies auxiliary to its courses of study, see p. 114; for fees, see p. 121.

# GENERAL STATEMENT

The purpose of the College is to train young men for the profession of engineering. In arranging its courses of study and practice, cultural subjects have not been neglected, but are interwoven with the strongly theoretical subjects which underlie and reinforce the more practical developments of the several departments. The instruction of the class room and the practice afforded by the library, the drafting room, and the laboratory proceed hand in hand. Throughout his course the student works upon problems, and proceeds by methods which are similar to those which enter into the experience of the practicing engineer.

The buildings, laboratories and other facilities of the College

are elsewhere described.

#### ADMISSION

See the general statement of the entrance requirements of the University, p. 83.

#### SPECIAL STUDENTS

See the statement of the general University regulations in regard to special students, p. 102.

#### DESCRIPTION OF DEPARTMENTS

The College of Engineering comprises the following departments:

DEPARTMENT OF ARCHITECTURE, with courses in—

Architecture

Architectural Engineering

Architectural Decoration

DEPARTMENT OF CIVIL ENGINEERING

DEPARTMENT OF ELECTRICAL ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

DEPARTMENT OF MINING ENGINEERING

DEPARTMENT OF MUNICIPAL AND SANITARY ENGINEERING

DEPARTMENT OF THEORETICAL AND APPLIED MECHANICS

DEPARTMENT OF PHYSICS

SCHOOL OF RAILWAY ENGINEERING AND ADMINISTRATION<sup>1</sup>
DEPARTMENT OF RAILWAY ENGINEERING, with courses in—

Railway Civil Engineering

Railway Electrical Engineering

Railway Mechanical Engineering

#### ARCHITECTURE

This department offers three courses of instruction, preparing the graduates to enter the professions of architecture, of architectural engineering, or of architectural decoration.

## PURPOSES OF COURSES OF STUDY

Architecture. This course prepares the graduate for the general practice of architecture and fits him to pass the State examinations. The course includes sufficient work in construction and in the strength of materials for the general practitioner, but-lays particular stress upon the study of architectural design.

Architectural Engineering. This course prepares the graduate for the designing and superintendence of complicated and difficult building construction; it includes the advanced study of fireproof structures and the use of reinforced concrete.

Architectural Decoration. This course prepares the graduate for expert designing and drafting, particularly in the field of decoration; it includes the history and theory of ornament, and devotes

The School of Railway Engineering and Administration offers courses in railway transportation and in railway traffic and accounting, under the direction of the department of economics of the College Clterature and Arts. For a description of these courses see "Courses in Business Administration," pp. 139 ff.

particular attention to the study of design and decoration in relief and in color.

#### EQUIPMENT

The collections of books, lantern slides, plates, photographs, easts, specimens of American woods, building materials and appliances, rendered and working drawings belonging to this department are noted under "Collections" on page 73. A Zeiss epidiascope is used for direct projection of photographs, colored plates, etc.; and a double electric lantern, projecting two pictures at once, for comparative illustration. Extensive wall space is prepared for exhibition purposes, and interesting and instructive drawings are constantly displayed. Modern individual drawing tables are provided in the various drafting rooms.

#### CIVIL ENGINEERING

The purpose in this department is to furnish a course of theoretical instruction, accompanied and illustrated by a large amount of practice. While the instruction aims to be practical by giving the student information and practice directly applicable in his future professional work, the prime object is the development of the mental faculties. The power to acquire information and the ability to use it are held to be of greater value than any amount of so-called practical knowledge.

## EQUIPMENT

This department has an equipment of compasses, engineers' transits, solar transits, levels—ordinary and precise,—plane tables, sextants, chronometers, barometers, etc. The department is also provided with a collection of structural shapes, including full-sized joints of an actual failroad bridge, sections of columns, eye-bars, etc., and with lithographs, photographs, and blue-prints of bridges and buildings.

The cement laboratory occupies rooms in the Mechanical Engineering Laboratory, and is provided with slate tables, testing machines, molding machines, sieves, etc., and sample barrels of hydraulic cement, varieties of sand, and other necessary materials.

The road laboratory occupies a room in the Mechanical Engineering Laboratory, and is provided with machines for testing the resistance of macadam material to impact and abrasion and for making the cementation test. The laboratory is also supplied with rattlers and other devices for testing paving material.

#### ELECTRICAL ENGINEERING

This department provides a course of study in theoretical and applied electricity. The first two years of work are substantially the same as in the other engineering courses, including practical work in drafting room and shop, as well as instruction in the fundamental principles of mathematics and physics. With the third year the fundamental studies relate more directly to electrical engineering. A course in dynamo machinery is followed by the theory of alternating currents, while laboratory and design courses emphasize underlying principles. Technical courses cover the generation, transmission, and distribution of electric power, and its various applications. In the laboratory a study of dynamo characteristics is followed in the fourth year by progressive experiments involving the operation of electrical machinery in principle and practice. Investigation of the problems of power distribution is a feature of advanced laboratory and thesis work.

#### EQUIPMENT

The 200 kilowatt power plant of the University, located in the Electrical Engineering Laboratory, supplies current for department use and affords opportunity for tests. A 40 kilowatt motor-generator recently installed in the laboratory, together with two new experimental switchboards, furnish excellent facilities for operating the direct and alternating machines of the department under any specified conditions.

The various types of generators, motors, converters, and transformers are represented, often in duplicate. Several machines built by students are in use in the laboratory. Modern measuring instruments of suitable range are provided for laboratory tests and for the calibration of commercial instruments of all types.

Three photometers and a room for display lighting offer opportunity for tests and practical comparisons of the various forms of lamps, both gas and electric. Two rooms not adjacent are furnished with special 100-line switchboards, with cables, coils, batteries, and instruments, to illustrate recent practice in telegraphy and telephony, as well as to provide for the rapid comparisons required in telephone experiments.

#### MECHANICAL ENGINEERING

It is the principal object of the department of mechanical engineering to give its students a training in the theoretical principles underlying the construction and operation of machinery and the

generation and transmission of power. The theoretical instruction is supplemented by shop and laboratory work of a practical character.

#### EQUIPMENT

The drawing rooms are equipped with card indexes, reference books, catalogs, gear charts, etc. In the cabinet rooms are kinematic models and sectional steam specialties.

The Steam Engineering Laboratory contains steam engines of various types, a York refrigerating machine of 10 tons refrigerating capacity, a DeLaval steam turbine direct-connected to a compound centrifugal pump, a Kerr steam turbine, a gas producer, a special test boiler of 210 horse power, an independent superheater, a compound air compressor, several gas engines, a hot air engine, a large volume fan, and a complete outfit of instruments used by the mechanical engineer for testing purposes. In the central heating station are several types of boilers equipped with different kinds of automatic stokers; there are also various steam and power pumps.

The shops of the College are in charge of the department of mechanical engineering; they consist of wood shop, foundry, forge shop, and machine shop. The shops are large and well lighted, and are all equipped with modern tools.

By special arrangement with the management of the Peoria and Eastern division of the C., C., C. & St. L. railway, the power plant and shops located at Urbana have been opened to the mechanical engineering department for visits of inspection and for experimental investigations. Opportunity is thus furnished for the study of machinery and processes in a shop operated under commercial conditions.

## MECHANICS, THEORETICAL AND APPLIED

The courses in theoretical and applied mechanics are designed to meet the needs of students of the College of Engineering.

The laboratory of applied mechanics, comprising the materials testing laboratory and the hydraulics laboratory, occupies a separate building. The materials laboratory is equipped with testing machines for tension, compression, flexure, and torsion, and for testing various kinds of structural materials. The equipment includes a testing machine having a capacity of 600,000 pounds, arranged to take large and bulky pieces in tension, compression, and flexure. The hydraulics laboratory has a standpipe, pumps, water motors and turbine, meas-

uring pits, Venturi meters, weir conduits, meter rating conduit, orifice boxes, weir boxes, and apparatus for experimental work on flow of water through pipes, hose, and nozzles. The University water works furnishes a supply of water at pressures up to 100 pounds a square inch.

#### MINING ENGINEERING

The department of mining engineering was authorized and established by the General Assembly of Illinois at its fortieth session. It offers courses of instruction relating to the science and practice of mining, to train young men for the various phases of the mining industry.

In addition to its work of instruction, the department concerns itself with the development and dissemination of such scientific facts as are likely to be of service in improving the practice of mining, with reference to efficiency in operation, to the security of life in the mines, and the conservation of the fuel and other mineral resources of the state.

The work of the department adds to the usual courses in mathematics, languages, chemistry, physics, geology, and general engineering topics, specialized work in mining, such as mine surveying, mine ventilation, mining machinery, administration and organization of mines, and mining laws. Especial attention is given to those problems which are peculiar to the coal operations of the state of Illinois.

#### EQUIPMENT

The department of mining engineering has an equipment of safety lamps, anemometers, water gages, and other apparatus needed for illustrative purposes in the study of mine ventilation; the appliances and testing apparatus used in connection with explosives and blasting; and working drawings and photographs of mine plants and mine appliances.

#### MINE EXPLOSION AND MINE RESCUE STATION

Co-operating with the department of mining engineering and with the State Geological Survey, the Federal Government has established at the University a Mine Rescue Station. The purpose of the Station is to interest mine operators and inspectors in the economic value of such modern appliances as oxygen helmets and resuscitation apparatus as parts of the normal equipment of mines.

At the Station mine bosses and others are trained in the use of such apparatus, this service being rendered gratuitously to all in Illinois, Indiana, Michigan, western Kentucky, Iowa, and Missouri who may desire the benefits thereof.

The Station offers to the student in mining engineering an opportunity for studying rescue work with oxygen helmets. They are brought into contact with men in practice from all parts of Illinois and surrounding states who come to the station for training in rescue work. It is expected that about the present station as a nucleus other laboratories for experimental work in connection with mining will be developed.

#### MUNICIPAL AND SANITARY ENGINEERING

This course is designed to train for the varied duties of the engineer employed on the design, construction, and operation of public works and public utilities, as well as to give training for general engineering work.

#### INSTRUCTION

The methods of training are intended to develop power to take up and solve new problems connected with municipal public works, as well as to design and to superintend the ordinary constructions. Surveying, structural materials, and structural design are taught as in the civil engineering course. Chemistry and bacteriology are given so far as is necessary to a comprehension of the questions involved in water supply and sewage disposal; and instruction is given in mechanical and electrical engineering in the generation and transmission of power.

#### PHYSICS

## LABORATORY AND EQUIPMENT

The department of physics occupies the new Laboratory of Physics, opened in November, 1909. This building is not only a very large and commodious physical laboratory, but also one complete in its facilities and equipment for instruction and investigation in physics. Gas, distilled water, compressed air and vacuum, direct and alternating electric currents of a wide range in amperes and in volts, are available in all parts of the building. Generous appropriations for a number of years have been used in the purchase of apparatus for the various courses of instruction offered and also for the advanced work in progress, and only a small part of the equip-

ment is antiquated. Experience has shown that new investigations can usually be started with the apparatus on hand. The extent of the apparatus may be judged from the fact that the recent inventory showed nearly 4,000 numbers. There are two workshops, one for the advanced students and instructors, and one for the mechanician of the department. The students' shop is equipped with lathes, drill press, bench tools, etc. The mechanician's shop contains lathes, milling machines, drill press, and other facilities for fine machine work.

The University library contains all the important sets of journals of physics and the related sciences in English, French, and German. The recent volumes of the physical journals, together with a collection of text-books, encyclopædias, dictionaries, and other reference books, are also found in the special library of the Laboratory.

#### RAILWAY ENGINEERING\*

The department of railway engineering is organized to serve those who wish to prepare themselves for service in the technical departments of railways. The course in railway civil engineering adds to the fundamentals of a well-rounded engineering course a group of specialized subjects which concern the design, construction. and maintenance of the various details entering into the construction of track, track structures, and systems of railway signaling. The course in railway electrical engineering emphasizes the design and construction of those details peculiar to electric railway lines; the operation and performance of electric cars and locomotives; and the development of the more general problems which arise in the electrification of existing steam lines. The course in railway mechanical engineering is intended to meet the requirements of those who are especially interested in steam railroad equipment. It deals with the design, construction, and maintenance of various types of railway cars; with conditions affecting train resistance; with the design and operation of steam locomotives; and with tests disclosing their performance.

#### EQUIPMENT

Three steam roads—the Illinois Central, the Cleveland, Cincinnati, Chicago and St. Louis, and the Wabash railroads—and an electric interurban road—the Illinois Traction System—enter Cham-

<sup>\*</sup>See also School of Railway Engineering and Administration, p. 226.

paign and Urbana. The department enjoys the interest and co-operation of the officers of these railways, and is afforded by their courtesy numerous opportunities for practical road tests and field work. The division shops of the Cleveland, Cincinnati, Chicago and St. Louis railroad are located at Urbana and provide additional opportunity for similar work.

The department has for some years owned and operated, jointly with the Illinois Central Railroad, a railway test car designed for experimental work on steam roads. It is fully equipped for making train resistance and locomotive performance tests, and during the last eight years has been in frequent operation in carrying on resistance and tonnage rating tests on the Illinois Central Railroad and on several Eastern roads.

For work on electric roads the department owns also an electric test car. This car, of the interurban type, was especially designed and built for the University for experimental work. It is equipped with four 50 horse power direct current motors and with the Westinghouse multiple control system, and is provided with instruments for recording power, speed, acceleration, and the other data needed in road tests. Through the courtesy of the Illinois Traction System, this car is operated on its lines, which enter the University campus.

The department has recently added to its laboratory equipment a drop-testing machine and a brake-shoe testing machine, both of which are constructed in accordance with the standards of the Master Car Builders' Association. The drop-testing machine is designed for use in testing the strength of railroad rails, of car axles, of car couplers, and of draft gears, and may be used in studies concerning the physical properties of structural materials of any sort. The brake-shoe testing machine supplies means for determining the wearing properties and frictional qualities of brake-shoes, such as are employed in regular service on railroad trains. The fact that the railroads of the country consume more than 200,000 tons of brake-shoe metal per annum, that the annual brake-shoe bill is probably in excess of \$8,000,000, and that both the durability and the holding power of individual shoes vary greatly, emphasizes the value of the work which may be done by the use of this machine.

Much of the work in the railway courses is given in the departments of civil, electrical, and mechanical engineering, and the shop and laboratory equipment of these departments is available for students of the railway department.

#### SUGGESTED ELECTIVES

The following courses are suggested as electives for students in the College of Engineering whose time is not fully occupied with required work:

Accountancy, Art and Design 1; Astronomy 3 and 6; Chemistry 2, 3, 16, 31, 34, 35; economics; Geology 13; Mathematics 9a, 10, 16, 21a, 22a; Rhetoric 3, 7, 10, 13; Physics 15, 16, 17; Political Science 17; Library 12; Architecture 2, 3, 4, 13; Civil Engineering 4a, 5, 21, 22; Electrical Engineering 1, 2, 5, 6, 16, 29; Mechanical Engineering 7, 27, 30, 31; Railway Engineering 11, 61.

#### SUMMER READING

All engineering students not graduates of a literary college are required to complete prescribed courses of reading of a non-professional character during the summer vacations following the freshman and sophomore years. The purpose of the summer reading is to increase the acquaintance of the student with literature, history, and general science, to develop in him a taste for such reading, and to impress him with the importance of such knowledge not only as a source of individual enjoyment, but as a practical aid to engineers in their social and business relations.

A circular on summer reading is issued, containing a list of books from which the student may choose. The books have been selected for their value in providing general training, but an attempt has been made to include only readable and attractive works. A statement of the books read during the summer is required at the beginning of the next college year.

#### GENERAL ENGINEERING LECTURES FOR FRESHMEN

One general lecture, sufficiently popular in character to interest and inspire young engineers, will be given each week. All freshman engineers are expected to attend this lecture.

#### TRIPS OF INSPECTION

It has become the practice of several of the departments of the College of Engineering to arrange trips of inspection for their students. Seniors in civil engineering have a four days' trip to Chicago and the vicinity; senior electrical engineers, a three days' trip to Chicago; and senior mechanical engineers a five days' trip to

Chicago and Milwaukee. Similar excursions may from time to time be arranged by other departments.

All such trips are carefully planned and timed to supplement the technical instruction of the class room. They are taken during term time and are under the direction of the head of the department. It is expected that so far as practicable all students eligible will participate, but since the students must bear the personal expense involved, the department does not require attendance. Students who participate must make a report or submit to an examination upon the work inspected; those who do not take the trip either continue with the regular class duties or are assigned special work for the period of the trip. Students whose standing is such that they can ill afford to take the time from their academic duties are advised to remain at the University. No trip will be made unless two-thirds of the enrolled membership of the class for which the trip is proposed can participate.

#### COURSES OF STUDY AND DEGREES

The courses of study leading to the degree of Bachelor of Science in the College of Engineering, as scheduled for the year 1910-1911, are given herewith in full. Any one of the eleven courses given may ordinarily be completed in a period of four years.

A graduate of the University of Illinois in architectural engineering, in civil engineering, in electrical engineering, in mechanical engineering, in mining engineering, in municipal and sanitary engineering, or in railway engineering may receive the degree of an allied course upon the completion of from thirty to thirty-six semester hours (including thesis) along lines approved by the faculty. This work may ordinarily be done in one academic year.

A graduate of the Colleges of Liberal Arts of the University of Illinois, or of any college of equal standing, whose mathematical training includes the work of the calculus, who has had the usual course in physics, and who has had sufficient training in the principles of mechanics to enable him to begin the mechanics of the junior year, may receive the degree of Bachelor of Science in the departments of the College of Engineering upon the completion of sixty-eight credit hours in such lines (including thesis) as may be directed by the faculty. This work may ordinarily be done in two academic years. Candidates for the degree in the departments of architecture are not required to be prepared in calculus or mechanics, but should possess special preparation in drawing.

### Course Required for the Degree of B. S. in Architecture

Course Required for the Degree of B. S. in Architecture	
FIRST	YEAR
FIRST SEMESTER S. H. <sup>1</sup>	SECOND SEMESTER S. H. <sup>1</sup>
General Engineering Drawing S. H. Trigonometry (Math. 4)	Descriptive Geom. (G. E. D. 2). 4 French 1 or German 3 or 5 or 6, or English 2, or Rhetoric 6, or English 3, or Rhetoric 4, or English 4, or Rhetoric 6, or English 2, or Rhetoric 7, or English 2, or Rhetoric 8, or English 2, or Rhetoric 8, or English 3, or Rhetoric 9, or English 3, or Rhetoric 1, or Rhetoric 1
SECOND	
FIRST SEMESTER S. H.	SECOND SEMESTER S. H.
Physics Lectures (Phys. 2a) . 2	Physics Lectures (Phys. 2a) . 2   Physics Laboratory (Phys. 5b) 2   Rhetoric 1
Total	Total
THIRD	VEAD
FIRST SEMESTER	SECOND SEMESTER
Sanitary Constr. (Arch. 4) 2 History of Arch. (Arch. 6) 4 Historic Ornament (Arch. 7) 4 Z Sketch Design (Arch. 9) 1 Arch. Seminar (Arch. 11) 1 Arch. Perspective (Arch. 14) 2 Design (Arch. 22) 3 Esthet. Form & C'Tr (Arch. 41) 2 Clay Modeling (A. and D. 8a) 2 Total 18½	S. H.
FOURTH	YEAR SECOND SEMESTER
S. H.	S. H.
Sketch Design (Arch. 9)	Sketch Design (Arch. 9). ½ Superintendence and Business Relations (Arch. 12)

<sup>&</sup>lt;sup>1</sup>Semester hours. For definition, see p. 134. <sup>2</sup>The numbers in parentheses refer to courses in the General Description of Courses.

Total ......151/2

## Course Required for the Degree of B. S. in Architectural Engineering

FIRST SEMESTER   S. H.1	YEAR   SECOND SEMESTER   S. H.1
SECOND   SECOND   FIRST SEMESTER   S. H.	YEAR   SECOND SEMESTER   S. H.
### THIRD S. H. Engin, Mater'ls (T. & A. M. 6) 1 Analyt, Mech. (T. & A. M. 8) 2 ½ Resist, of Mat. (T. & A. M. 9) 3 ½ History of Arch. (Arch. 6) 4 Arch. Seminar (Arch. 11) 1 Chemistry <sup>2</sup> 1b or 1e 4 Prin. of Economics (Econ. 2) 2	SECOND SEMESTER   Hydraulics (T. & A. M. 10)   S. H.   Graphic Stat. & Roofs (Arch. 5) 4   History of Architecture (Arch. 6) 4   Working Drawings (Arch. 10) 1   Architectural Seminar (Arch. 11)   1   Steam Eng. & Boil. (M. E. 11)   3   Surveying (C. E. 10) 2
Total	Total

<sup>1</sup>Semester hours. For definition, see p. 134. <sup>2</sup>The numbers in parentheses refer to courses in the General Description of Courses.

3Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.

## Course Required for the Degree of B. S. in Architectural Decoration

FIRST SEMESTER  General Engin, Drawing 12	YEAR  SECOND SEMESTER  Bescriptive Geom. (G. E. D. 2). 4 French 1, or German 3 or 5 or 6, or English 2, or Rhetoric 11, or Spanish 1, 4 Element Arch. Draw. (Arch. 8). 3 Elem. Mech. (T. & A. M. 12). 5 Military Drill (Mil. 2). 1 Drill Regulations (Mil. 1). 1 Gymnasium (Phys. Tr. 1). 1 Total 19
SECOND FIRST SEMESTER S. H. Physics Lectures (Phys. 2a) . 2 Physics Laboratory (Phys. 2b) . 2 Monthly Problems (Arch. 9) . ½ Arch. Counosition (Arch. 8) . 3 History of Pine Arts (Arch. 29) . 3 Decreative Design (Arch. 36) . 2 Dear The Color (Arch. 41) . 2 Draw from Antiq. (A. & D. 3) 3 Military Drill (Mil. 2) 1 Total	YEAR  SECOND SEMESTER  Physics Lectures (Phys. 2a) . 2 Physics Laboratory (Phys. 2b) 2 Monthly Problems (Arch. 9) . 4/2 Arch Composition (Arch. 9) . 4/2 Arch Composition (Arch. 28) 3 History of Phac Arts (Arch. 29) 3 Draw trom Seign (Arch. 36) 2 Draw trom Artt (A. & D. 3) 3 Clay Modeling (A. and D. 8) . 2 Military Drill (Mil. 2) 1  Total
THIRD   S. H.	YEAR
FOURTH  FIRST SEMESTER  8. H.  Monthly Problems (Arch. 9) ½  Advanced Design (Arch. 17) 3  Interior Decoration (Arch. 28) 3  Thesis (Arch. 30) 2  Arch. Laboratory (Arch. 38) 3  Rhetoric 1	YEAR   SECOND SEMESTER   S. H.

Semester hours. For definition, see p. 134.
The numbers in parentheses refer to courses in the General Description of Courses.

## Course Required for the Degree of B. S. in Civil Engineering

course required for the Begre	e of B. S. III CIVII Engineering
FIRST	
FIRST SEMESTER S. H. <sup>1</sup> General Engineering Drawing (G.	SECOND SEMESTER S. H. <sup>1</sup> Descriptive Geometry (G. E.
E. D. 1) <sup>2</sup>	D. 2) 4
Trigonometry (Math. 4) 2	D. 2) 4 Analytical Geometry (Math. 6) 5 French 1, or German 3 or 5 or 6, or English 2, or Rhetoric 11, or
Advanced Algebra (Math. 2) 3 French 1, or German 1 or 4, or English 1, or Spanish 1 4	or English 2, or Rhetoric 11, or
English 1, or Spanish 1 4	Spanish 1 4
Shop Practice (M. E. 41)   3   Military Drill (Mil. 2)   1   Gymnasium (Phys. Tr. 1)   1	Spanish 1       4         Shop Practice (M. E. 41)       3         Military Drill (Mil. 2)       1         Drill Regulations (Mil. 1)       1
Gymnasium (Phys. Tr. 1) 1	Drill Regulations (Mil. 1) 1 Gymnasium (Phys. Tr. 1) 1
Total18	-
	Total19
SECOND	
FIRST SEMESTER S. H.	SECOND SEMESTER S. H.
Differential Calculus (Math. 7). 5	Integral Calculus (Math. 9) 3
Physics Lectures (Phys. 1) 3 Physics Laboratory (Phys. 3) 2	Physics Lectures (Phys. 1) 2 Physics Laboratory (Phys. 3) 2
Rhetoric 1 3	Rhetoric 1
Rhetoric 1	Analytical Mechanics (T. & A.
Total19	Topograph. Surveying (C. E. 22). 4
Total19	M. 7) . 3 Topograph. Surveying (C. E. 22). 4 Railroad Curves (C. E. 23) 1 Military Drill (Mil. 2) 1
	Total
	10tal
THIRD	YEAR SUGAND SUMMERD
First Semester S. H.	SECOND SEMESTER S. H.
FIRST SEMESTER S. H.	SECOND SEMESTER S. H.
FIRST SEMESTER S. H.	SECOND SEMESTER S. H.
FIRST SEMESTER S. H.	SECOND SEMESTER  Hydraulics (T. & A. M. 10) 3 Road Engineering (C. E. 1) 2 Graphic Statics (C. E. 20) 2 Astronomy 3 and 6, or Geology
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER  Hydraulics (T. & A. M. 10) 3 Road Engineering (C. E. 1) 2 Graphle Statics (C. E. 20) 2 Astronomy 3 and 6, or Geology 13 Stam Engines and Rollers (M. 5
	SECOND SEMESTER  Hydraulics (T. & A. M. 10) 3 Road Engineering (C. E. 1) 2 Graphle Statics (C. E. 20) 2 Astronomy 3 and 6, or Geology 13 Stam Engines and Rollers (M. 5
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	SECOND SEMESTER  Hydraulics (T. & A. M. 10) 3 Road Engineering (C. E. 1) 2 Graphle Statics (C. E. 20) 2 Astronomy 3 and 6, or Geology 13 Stam Engines and Rollers (M. 5
	SECOND SEMESTER   S. H.
FIRST SEMESTER  Engineering Materials (T. & A. M. 6) 1  Analytical Mechanics (T. & A. M. 8) 2½  Resistance of Materials (T. & A. M. 9) 3½  Railroad Surveying (C. E. 4) 5  Chemistry³ 1b or 1a 4  Total 16	SECOND SEMESTER   S. H.
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   Hydraulics (T. & A. M. 10) 3   Road Engineering (C. E. 1) 2   Graphic Statics (C. E. 20) 2   Astronomy 3 and 6, or Geology 13   Steam Engines and Bollers (M. E. 11) 5   Steam Engines and Bollers (M. Principles of Economics (Econ. 2) 2   Total 17   YEAR
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   Hydraulics (T. & A. M. 10) 3   Road Engineering (C. E. 1) 2   Graphic Statics (C. E. 20) 2   Astronomy 3 and 6, or Geology 13   Steam Engines and Bollers (M. E. 11) 3   Principles of Economics (Econ. 2) 2   Total 17   YEAR   SECOND SEMESTER   S. H.
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   S. H.
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   S. H.
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   Hydraulics (T. & A. M. 10) 3   Road Engineering (C. E. 1) 2   Graphic Statics (C. E. 20) 2   Astronomy 3 and 6, or Geology 13   Steam Engines and Bollers (M. E. 11) 3   Principles of Economics (Econ. 2) 2   2   Total 17   YEAR   SECOND SEMESTER   SH. Masoury and Reinforced Concrete Design (C. E. 6) 2   Bridge Design (C. E. 14) 2   Bridge Design (E. 14) 2   Eridge Desi
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   Hydraulics (T. & A. M. 10) 3   Road Engineering (C. E. 1) 2   Graphic Statics (C. E. 20) 2   Astronomy 3 and 6, or Geology 13   Steam Engines and Boilers (M. E. 11)   3   Principles of Economics (Econ. 2) 2   2   Total 17   YEAR   SECOND SEMESTER   S. H. Masoury and Reinforced Concrete Design (C. E. 14) 5   Bridge Design (C. E. 14) 5   Endige
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   Hydraulics (T. & A. M. 10) 3   Road Engineering (C. E. 1) 2   Graphic Statics (C. E. 20) 2   Astronomy 3 and 6, or Geology 13   Steam Engines and Boilers (M. E. 11)   3   Principles of Economics (Econ. 2) 2   2   Total 17   YEAR   SECOND SEMESTER   S. H. Masoury and Reinforced Concrete Design (C. E. 14) 5   Bridge Design (C. E. 14) 5   Endige
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   Hydraulics (T. & A. M. 10) 3   Road Engineering (C. E. 1) 2   Graphic Statics (C. E. 20) 2   Astronomy 3 and 6, or Geology 13   Steam Engines and Boilers (M. E. 11)   3   Principles of Economics (Econ. 2) 2   2   Total 17   YEAR   SECOND SEMESTER   S. H. Masoury and Reinforced Concrete Design (C. E. 14) 5   Bridge Design (C. E. 14) 5   Endige
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   S. H.

<sup>&</sup>lt;sup>1</sup>Semester hours. For definition, see p. 134. <sup>2</sup>The numbers in parentheses refer to courses in the General Description

of Courses. Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a; those who have received credit for Chemistry 1a will register in Electrical Engineering 2 and 28.

## Course Required for the Degree of B. S. in Electrical Engineering

Course Required for the Degree o	i b. 5. in Electrical Engineering
FIRST SEMESTER FIRST	YEAR SECOND SEMESTER
S. H.1	S. H. <sup>1</sup>
General Engineering Drawing (G. E. D. 1)2	Descriptive Geometry (G. E. D. 2)
Trigonometry (Math. 4) 2	Analytical Geometry (Math. 6). 5 French 1, or German 3 or 5 or 6,
Advanced Algebra (Math. 2) 3 French 1, or German 1 or 4, or	or English 2, or Rhetoric 11, or
French 1, or German 1 or 4, or English 1, or Spanish 1 4	Spanish 1         4           Shop Practice (M. E. 41)         8           Military Drill (Mil. 2)         1
Shop Practice (M. E. 41)       3         Military Drill (Mil. 2)       1         Gymnasium (Phys. Tr. 1)       1	Military Drill (Mil. 2) 1
	Drill Regulations (MII. 1) 1 Gymnasium (Phys. Tr. 1) 1
Total	_
anaown	Total19
FIRST SEMESTER SECOND	YEAR SECOND SEMESTER
S. H.	S. fl.
Differential Calculus (Math. 7) 5 Physics Lectures (Phys. 1) 3	Integral Calculus (Math. 9) 3 Physics Lectures (Phys. 1) 2
Physics Lectures (Phys. 1) 3 Physics Laboratory (Phys. 3) 2	Physics Laboratory (Phys. 3). 2
Rhetoric 1	Rhetoric 1
(M. E. 24)	M. 7)
Military Drill (Mil. 2) 1	Military Drill (Mil. 2) 1
Total	Total
THIRD	
FIRST SEMESTER S. H.	SECOND SEMESTER S. H.
Engineering Materials (T. & A.	Hydraulics (T. & A. M. 10) 3 Alternating Currents (E. E. 5). 4
Analytical Mechanics (T & A	Electrical Engineering Laboratory
M. 8)	(E. E. 23)
A. M. 9) 3½	ments (Phys. 4)
A. M. 9)	Mechanical Engineering Labor-
Electrical Engineering Labor-	atory (M. E. 13)
Electrical and Magnetic Meas-	
urements (Phys. 4) 2 Chemistry (2 and 3) 4	Total18
Total	
	VEAD
FIRST SEMESTER FOURTH	SECOND SEMESTER
Seminar (E. E. 13) 1	Seminar (E. E. 13) 1
Advanced Alternating Currents (E. E. 14)	Advanced Alternating Currents
Electrical Engineering Labor-	(E. E. 17)4 Electrical Engineering Laboratory
Electrical Engineering Laboratory (E. E. 24) 2 Electrical Design (E. E. 32) 2 Thermodynamics (M. E. 15) 3	Figstries Design and Demon
Thermodynamics (M. E. 15) 3	Plants (E. E. 34)
Principles of Economics (Econ.	Thesis (E. E. 35)
Steam Engineering (M. E. 23) 2	and the same of th
m · · ·	Total15

<sup>1</sup>Semester hours. For definition, see p. 134. <sup>2</sup>The numbers in parentheses refer to courses in the General Description

Total ......16

of Courses, who have had chemistry in the high school equivalent to Chemistry 15 will register in Chemistry 1a.

# Course Required for the Degree of B. S. in Mechanical Engineering

~ge	******
FIRST	
FIRST SEMESTER	SECOND SEMESTER
S. H.1	Descriptive Geometry (G. E. S. H.1
General Engineering Drawing (G. E. D. 1) <sup>2</sup>	D. 2)
Trigonometry (Math. 4) 2	Analytical Geometry (Math. 6), 5
Advanced Algebra (Math. 2) 3	French 1, or German 3 or 5 or 6,
French 1, or German 1 or 4, or English 1, or Spanish 1 4	or English 2, or Rhetoric 11,
English 1, or Spanish 1 4	Descriptive Geometry (G. E. D. 2)
Shop Practice (M. E. 41)       3         Military Drill (Mil. 2)       1         Gymnasium (Phys. Tr. 1)       1	Military Drill (Mil 2)
Gymnasinm (Phys Tr 1)	Drill Regulations (Mil. 1)
	Gymnasium (Phys. Tr. 1) 1
Total18	_
	Total19
SECOND	VEAD
FIRST SEMESTER	SECOND SEMESTER
S. H.	S. H.
Differential Calculus (Math. 7). 5	Integral Calculus (Math. 9) 3 Physics Lectures (Phys. 1) 2 Physics Laboratory (Phys. 3) 2
Physics Lectures (Phys. 1) 3	Physics Lectures (Phys. 1) 2
Physics Laboratory (Phys. 3) 2	Physics Laboratory (Phys. 3) 2
Machine Shop (M E 42)	Rhetoric 1
Rhetoric 1	
Military Drill (Mil. 2) 1	Machine Shop (M. E. 42) 2
	Machine Shop (M. E. 42) 2 Steam Engineering (M. E. 16). 3 Military Drill (Mil. 2) 1
Total	Military Drill (Mil. 2) 1
	Total
mer in n	
	VEAR
	YEAR SECOND SEMESTER
FIRST SEMESTER S. H.	SECOND SEMESTER S. H.
FIRST SEMESTER S. H. Engineering Materials (T. & A.	SECOND SEMESTER S. H.
FIRST SEMESTER S. H. Engineering Materials (T. & A.	SECOND SEMESTER S. H.
FIRST SEMESTER S. H. Engineering Materials (T. & A. M. 6)	SECOND SEMESTER S. H.
FIRST SEMESTER S. H. Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   S. H.
FIRST SEMESTER S. H. Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   S.H.
FIRST SEMESTER S. H. Engineering Materials (T. & A. M. 6)	SECOND SEMESTER
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   S.H.
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER
FIRST SEMESTER  8. H.  M. 6)  Analytical Mechanics (T. & A.  M. 8)  Resistance of Materials (T. & 4.  A. M. 9)  Power Measurements (M. E. 3)  Mechanism (M. E. 5)  Mechanism (M. E. 5)  Methanism (M.	SECOND SEMESTER
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER
FIRST SEMESTER  Engineering Materials (T. & A. M. 6) 1 Analytical Mechanics (T. & A. J. 2½ Resistance of Materials (T. & A. A. M. 9) 3 1/2 Power Measurements (M. E. 3) 2 Mechanism (M. E. 5) 3 1 Integral Calculus (Math. 9a) 2 Chemistry³ 1a or 1b 4  Total 18	SECOND SEMESTER
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   S. H.
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   S. H.
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER
FIRST SEMESTER   S. H.	SECOND SEMESTER   S. H.
FIRST SEMESTER   S. H.	SECOND SEMESTER
FIRST SEMESTER   S. H.	SECOND SEMESTER   S. H.
FIRST SEMESTER   S. H.	SECOND SEMESTER   S. H.
FIRST SEMESTER   S. H.	SECOND SEMESTER
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER
FIRST SEMESTER   S. H.	SECOND SEMESTER
FIRST SEMESTER   S. H.	SECOND SEMESTER

<sup>1</sup>Semester hours. For definition, see p. 134, <sup>2</sup>The numbers in parentheses refer to courses in the General Description

of Courses.

\*Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.

## Course Required for the Degree of B. S. in Mining Engineering

FIRST SEMESTER   S. H.1	YEAR
SECOND   S	YEAR
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	YEAR         SECOND SEMESTER           Mine Surveying (Min. 4)         4           Mine Ventilation (Min. 5)         3           Graphic Statics (C. E. 20)         2           Steam Engineering (M. E. 16)         3           Geology 13         5           Total         .17
FIRST SEMESTER  Mechanical Engineering of Mines (Min. 6)	YEAR   SECOND SEMESTER   S. H.

of Courses. "Students who have had chemistry in the bigh school equivalent to Chemistry 1b will register in Chemistry 1a.

<sup>&</sup>lt;sup>1</sup>Semester hours. For definition, see p. 134. <sup>2</sup>The numbers in parentheses refer to courses in the General Description

## Course Required for the Degree of B. S. in Municipal and Sanitary Engineering

TATACINA	VELD
FIRST SEMESTER	SECOND SEMESTER
S. H. <sup>1</sup>	S. H.1
General Engineering Drawing	Descriptive Geometry (G. E.
(G. E. D. 1) $^2$	D. 2)
Advanced Algebra (Math. 2) 3	
French 1, or German 1 or 4, or English 1, or Spanish 1 4	or English 2, or Rhetoric 11, or Spanish 1
Shop Practice (M. E. 41) 3	Shop Practice (M. E. 41) 3
Shop Practice (M. E. 41)	Military Drill (Mil. 2) 1
Gymnasium (Phys. Tr. 1) 1	Drill Regulations (Mil. 1)1 Gymnasium (Phys. Tr. 1) 1
Total18	
	Total19
SECOND	
FIRST SEMESTER S. H.	SECOND SEMESTER S. H.
Differential Calculus (Math. 7). 5	Integral Calculus (Math. 9) 3
Physics Lectures (Physics 1) 3	Physics Lectures (Phys. 1) 2 Physics Laboratory (Phys. 3) 2
Physics Laboratory (Physics 3). 2	Physics Laboratory (Phys. 3) 2
Surveying (C. E. 21)	Analytical Mechanics (T. & A.
Rhetoric 1	Rhetoric 1
Total	Railroad Curves (C. E. 23) 1
	Military Drill (Mil. 2) 1
	Total
THIRD	YEAR
FIRST SEMESTER	SECOND SEMESTER
FIRST SEMESTER S. H.	SECOND SEMESTER
FIRST SEMESTER S. H.	SECOND SEMESTER
FIRST SEMESTER S. H.	SECOND SEMESTER
FIRST SEMESTER S. H.	SECOND SEMESTER  Hydraulics (T. & A. M. 10) 3 Road Engineering (C. E. 1) 2 Graphic Statics (C. E. 20) 2 Steam Engines and Rollers (M.
FIRST SEMESTER S. H.	SECOND SEMESTER  Hydraulics (T. & A. M. 10) 3 Road Engineering (C. E. 1) 2 Graphic Statics (C. E. 20) 2 Steam Engines and Rollers (M.
FIRST SEMESTER S. H. Engineering Materials (T. & A. M. 6)	SECOND SEMESTER
FIRST SEMESTER S. H.	SECOND SEMESTER  Hydraulics (T. & A. M. 10) 3 Road Engineering (C. E. 1) 2 Graphic Statics (C. E. 20) 2 Steam Engines and Rollers (M.
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   S. H.   Hydraulics (T. & A. M. 10)   3   Road Engineering (C. E. 1)   2   Graphic Statics (C. E. 20)   2   Steam Engines and Boilers (M. E. 11)   3   Chemistry 2, 3, 10b   5   Electrical Engineering (E. E. 1)   2
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   S. H.
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   Hydraulics (T. & A. M. 10) 3   Road Engineering (C. E. 1) 2   Graphic Statics (C. E. 20) 2   Steam Engines and Boilers (M. E. 11) 3   Chemistry 2, 3, 10b 5   Electrical Engineering (E. E. 1) 2   Total 17
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   Hydraulics (T. & A. M. 10) 3   Road Engineering (C. E. 1) 2   Graphic Statics (C. E. 20) 2   Steam Engines and Boilers (M. E. 11) 3   Chemistry 2, 3, 10b 5   Electrical Engineering (E. E. 1) 2   Total 17
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   Hydraulics (T. & A. M. 10) 3   Road Engineering (C. E. 1) 2   Graphic Statics (C. E. 20) 2   Steam Engines and Boilers (M. E. 11) 3   Schemistry 2, 3, 10b 5   Electrical Engineering (E. E. 1) 2   Total 17    I YEAR   SECOND SEMESTER   S. H. Sewerage (M. & S. E. 3) 3
FIRST SEMESTER  Engineering Materials (T. & A. M. 8)	SECOND SEMESTER   Hydraulics (T. & A. M. 10) 3   Road Engineering (C. E. 1) 2   Graphic Statics (C. E. 20) 2   Steam Engines and Boilers (M. E. 11) 3   Schemistry 2, 3, 10b 5   Electrical Engineering (E. E. 1) 2   Total 17    I YEAR   SECOND SEMESTER   S. H. Sewerage (M. & S. E. 3) 3
FIRST SEMESTER	SECOND SEMESTER   Hydraulics (T. & A. M. 10) 3   Road Engineering (C. E. 1) 2   Graphic Statics (C. E. 20) 2   Steam Engines and Boilers (M. E. 11) 3   Schemistry 2, 3, 10b 5   Electrical Engineering (E. E. 1) 2   Total 17    I YEAR   SECOND SEMESTER   S. H. Sewerage (M. & S. E. 3) 3
FIRST SEMESTER	SECOND SEMESTER   Hydraulics (T. & A. M. 10) 3   Road Engineering (C. E. 1) 2   Graphic Statics (C. E. 20) 2   Steam Engines and Boilers (M. E. 11) 3   Schemistry 2, 3, 10b 5   Electrical Engineering (E. E. 1) 2   Total 17    I YEAR   SECOND SEMESTER   S. H. Sewerage (M. & S. E. 3) 3
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   Hydraulics (T. & A. M. 10) 3   Road Engineering (C. E. 1) 2   Graphic Statics (C. E. 20) 2   Steam Engines and Boilers (M. E. 11) 3   Schemistry 2, 3, 10b 5   Electrical Engineering (E. E. 1) 2   Total 17    I YEAR   SECOND SEMESTER   S. H. Sewerage (M. & S. E. 3) 3
FIRST SEMESTER  M. 6)	SECOND SEMESTER   Hydraulics (T. & A. M. 10) 3   Road Engineering (C. E. 1) 2   Graphic Statics (C. E. 20) 2   Steam Engines and Boilers (M. E. 11) 3   Schemistry 2, 3, 10b 5   Electrical Engineering (E. E. 1) 2   Total 17    I YEAR   SECOND SEMESTER   S. H. Sewerage (M. & S. E. 3) 3
FIRST SEMESTER  M. 6)	SECOND SEMESTER   Hydraulics (T. & A. M. 10) 3   Road Engineering (C. E. 1) 2   Graphic Statics (C. E. 20) 2   Steam Engines and Boilers (M. E. 11) 3   Schemistry 2, 3, 10b 5   Electrical Engineering (E. E. 1) 2   Total 17    I YEAR   SECOND SEMESTER   S. H. Sewerage (M. & S. E. 3) 3
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	SECOND SEMESTER   S. H.

Total .....

<sup>1</sup>Semester hours. For definition, see p. 134.

The numbers in parentheses refer to courses in the General Description of Courses.

Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1b.

## Course Required for the Degree of B. S. in Railway Civil Engineering\*

FIRST	YEAR
FIRST SEMESTER S. H. <sup>1</sup>	SECOND SEMESTER S. H. <sup>1</sup>
General Engineering Drawing (G. E. D. 1) <sup>2</sup> . 4 Trigonometry (Math. 4). 2 Advanced Algebra (Math. 2). 3 French I, or German I or 3 or 4, or English I, or Spanish I. 4 Shop Fractice (M. E. 41). 3 Military Drill (Mil. 2). 1 Gymnasium (Phys. Tr. 1). 1	Descriptive Geometry (G. E. D. 2) 4
Total18	Total
SECOND	
FIRST SEMESTER	SECOND SEMESTER
Differential Calculus (Math. 7). 5   Physics Lectures (Phys. 1). 3   Physics Laboratory (Phys. 3). 2   Rhetoric 1	Integral Calculus (Math. 9) S. H. Physics Lectures (Phys. 1) 2 Physics Laboratory (Phys. 3) 2 Rhetoric 1 2 Analytical Mechanics (T. & A. M. 7) 2 Topographical Surveying (C. E.
1000119	22)
	Total
	10tal
THIRD	
FIRST SEMESTER THIRD	YEAR SECOND SEMESTER
	YEAR
FIRST SEMESTER S. H. Engineering Materials (T. & A. M. 6)	YEAR  SECOND SEMESTER  Hydraulics (T. & A. M. 10) 3 Railway Structures (R. E. 32) 2 Graphic Statics (C. E. 20) 2 Steam Engines and Bollers (M. E. 11) 3 Astronomy 3 and 6, or Geology 13 5 Principles of Economics (Econ.
FIRST SEMESTER   S. H.	YEAR  SECOND SEMESTER  Hydraulics (T. & A. M. 10) 3 Railway Structures (R. E. 32) 2 Graphic Statics (C. E. 20) 2 Steam Engines and Bollers (M. E. 11) 3 Astronomy 3 and 6, or Geology 13 5 Principles of Economics (Econ. 2) 2 Total 2  YEAR SECOND SEMESTER
FIRST SEMESTER  Engineering Materials (T. & A. M. 6)	YEAR   SECOND SEMESTER   S. H.

<sup>\*</sup>Differs from the course in civil engineering only after the first semester of the third year.

4Semester hours. For definition, see p. 134.

4The numbers in parentheses refer to courses in the General Description of Courses.

4Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.

## Course Required for the Degree of B. S. in Railway Electrical Engineering\*

, Diiginot	b
FIRST	YEAR
FIRST SEMESTER S. H. <sup>1</sup>	SECOND SEMESTER S. H. <sup>1</sup>
General Engineering Drawing (G. E. D. 1)2 4 Trigonometry (Math. 4)	Descriptive Geometry (G. E. D. 2) 4 Analytical Geometry (Math. 6). 5 French 1, or German 3 or 5 or 6, or English 2, or Rhetoric 11, or Spanish 1 4 Shop Practice (M. E. 41). 3 Military Drill (Mil. 2). 1 Drill Regulations (Mil. 1). 1 Gymnasium (Phys. Tr. 1). 1
Total	Total19
FIRST SEMESTER SECOND	YEAR SECOND SEMESTER
S. II. Differential Calculus (Math. 7). 5 Physics Lectures (Phys. 1). 3 Physics Laboratory (Phys. 3). 2 Rhetoric 1	Integrai Calculus (Math. 9)
Total19	Total18
FIRST SEMESTER THIRD	YEAR SECOND SEMESTER
Engineering Materials (T. & A. M. 6).  M. 6).  M. 6).  M. 6).  M. 8).  Resistance of Materials (T. & A. M. 9).  Resistance of Materials (T. & A. M. 9).  34/2  Dynamo-Electric Machinery (E. E. 3).  Electrical Engineering Laboratory (E. E. 22).  Electrical and Magnetic Measurements (Phys. 4).  Chemistry 2 and 3	Hydraulics (T. & A. M. 10) 3
FIRST SEMESTER FOURTH	YEAR SECOND SEMESTER
Seminar (R. E. 10)	YEAR         SECOND SEMESTER         S. H.           Seminar (R. E. 10)          1           Rallway         Laboratory and Road         Tests (R. E. 63)          3           Electric Rallway Practice (R. E. 65)          8         Electrical Design and Power Plants (E. E. 34)          3           Economic Problems (Econ. 16)         2         2         Thesis (R. E. 30)          3           Total
Total17	

<sup>\*</sup>Differs from the course in Electrical Engineering in the fourth year

only.

\*\*Remester hours. For definition, see p. 134.

\*The numbers in parentheses refer to courses in the General Description

## Course Required for the Degree of B. S. in Railway Mechanical Engineering\* FIRST YEAR FIRST SEMESTER SECOND SEMESTER S. H.1 | General Engineering Drawing | G. E. D. 1) | G. E. D. 2 Descriptive Geometry (G. E. D. Descriptive Geometry (G. E. E. 2) 2) Analytical Geometry (Math. 6). 5 French 1, or German 3 or 5 or 6, or spinish 1, or Rhetoric 11, or spinish 1, or Rhetoric 11, Drill Regulations (Mil. 2). 1 Gymnasium (Phys. Tr. 1). 1 Total ......18 SECOND YEAR FIRST SEMESTER SECOND SEMESTER Integral Calculus (Math. 9).... 3 Physics Lectures (Phys. 1).... 2 Physics Laboratory (Phys. 3)... 2 Total ......19 THIRD YEAR SECOND SEMESTER FIRST SEMESTER Englneering Materials (T. & A. 21/2 Total ......18 FOURTH YEAR FIRST SEMESTER SECOND SEMESTER

\*Differs from the course in mechanical engineering only after the first semester of the third year.

Semester hours. For definition, see p. 134.

Total ...... 15

Dynamometer Car Tests (R. E Sseminar (R. E. 10) 2 Sseminar (R. E. 10) 1 E. 8 8 Alternating Currents (E. E. 6) 2 Principles of Economics (Econ.

The numbers in parentheses refer to courses in the General Description

\*Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.

## THE COLLEGE OF AGRICULTURE

#### FACULTY

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT EUGENE DAVENPORT, M.Agr., LL.D., DEAN

#### In Agronomy-

Cyril George Hopkins, Ph.D., Professor

JEREMIAH GEORGE MOSIER, B.S., Assistant Professor, Soil Physics JAMES HARVEY PETTIT, Ph.D., Assistant Professor, Soil Fertility LOUIE HENRY SMITH, Ph.D., Assistant Professor, Plant Breeding ALBERT NASH HUME, M.S., Ph.D., Assistant Professor, Crop Production (on leave)

ORLO DORR CENTER, M.S., Associate, Crop Production WILLIAM GEORGE ECKHARDT, B.S., Instructor, Soil Fertility AXEL FERDINAND GUSTAFSON, B.S., Instructor, Soil Physics

EARL ARCHIBALD WHITE, B.S., Instructor, Agricultural Mechanics ARTHUR LUMBRICK, B.S., Assistant, Crop Production

IRA WILMER DICKERSON, B.S., Assistant, Agricultural Mechanics KARL JOHN THEODORE EKBLAW, B.S., Assistant, Agricultural Mechanics

FRANK CRAVENS GRANNIS. Assistant. Soil Fertility ELMER MASSEY McDonald, B.S., Assistant, Crop Production

## In Animal Husbandry-

HERBERT WINDSOR MUMFORD, B.S., Professor HARRY SANDS GRINDLEY, Sc.D., Professor, Animal Chemistry WILLIAM DIETRICH, A.M., Assistant Professor, Swine Husbandry LOUIS DIXON HALL, M.S., Assistant Professor WALTER CASTELLA COFFEY, M.S., Associate, Sheep Husbandry HENRY PERLY RUSK, B.S., Associate, Beef Cattle Husbandry James Lloyd Edmonds, B.S., Instructor, Horse Husbandry

LUCIUS WELBORNE SUMMERS, B.S., Assistant PAUL ALEXANDER HOFFMAN, M.S., Assistant, Animal Nutrition

## In Dairy Husbandry-

WILBER JOHN FRASER, M.S., Professor CASSIUS CLAY HAYDEN, M.S., Assistant Professor NELSON WILLIAM HEPBURN, M.S., Associate, Dairy Manufactures ROYDEN EARL BRAND, B.S., Instructor WALTER LEE GAINES, M.S., Instructor LEROY LANG, B.S., Assistant

#### In Horticulture-

JOSEPH CULLEN BLAIR, M.S.A., Professor, Pomology
JOHN WILLIAM LLOYD, M.S.A., Associate Professor, Olericulture
CHARLES SPENCER CRANDALL, M.S., Associate Professor, Pomology
HERMAN BERNARD DORNER, M.S., Associate, Floriculture
ERNEST WINFIELD BAILEY, M.S., Instructor, Pomology
LOUIS BRANDT, B.S., Instructor, Landscape Gardening
CHARLES ELMER DURST, B.S., Assistant, Olericulture

#### In Household Science-

Household Science—
ISABEL BEVIER, Ph.M., Professor
SUSANNAH USHER, B.S., Assistant Professor, Dietetics
ANNA ROBERTA VANMETER, M.S., Assistant Professor
CHARLOTTE MITCHELL GIBBS, A.M., Associate, Textiles
NELLE ESTHER GOLDTHWAITE, Ph.D., Associate
HELENA MAUD PINCOMB, B.S., Instructor, Household Science for
Secondary Schools

NINA BELLE CRIGLER, B.S., Assistant
HARRIET BECKWITH RINAKER, A.M., Assistant
NELLE MAJOR DICKINSON, B.S., Assistant, Household Science

In Thremmatology—
EUGENE DAVENPORT, M.Agr., LL.D., Professor

## In Veterinary Science—

DONALD McIntosh, V.S., Professor

## In Agricultural College Extension-

Fred Henry Rankin, Superintendent, Assistant Professor Fred Lemar Charles, M.S., Assistant Professor, Agricultural Education

DANIEL OTIS BARTO, B.S., Instructor, Secondary School Agriculture

The foregoing list covers only that portion of the University faculty giving instruction in strictly technical agricultural subjects. Many other subjects, such as chemistry, rhetoric, physical training, and military training, are required, and practically all the work of the University is open to agricultural students.

For the buildings used by this College, see p. 66; for a list of its courses, see p. 80; for the Agricultural Club, see p. 115; for fees and expenses, see p. 121.

#### PURPOSES

This College offers courses of instruction to both men and women. The courses offered to men are designed for three distinct purposes:

First, and mainly, to train for the profession of farming.

Second, to train for the teaching of agriculture in the public schools.

Third, to train for the profession of landscape gardening.

The courses for women, offered by the department of household science, have two distinct purposes in view:

First, and mainly, to train young women in the science and art of household affairs.

Second, to prepare teachers for giving instruction in domestic science in high schools, and, in connection with the College of Science, to fit for college and university positions.

In the case of both men and women the great purpose is to prepare for the practical affairs of life. The agricultural courses therefore appeal to those who desire to become farmers, while the household science courses appeal to the women of the university in general, and to all others who for any reason are interested in the affairs of the home without regard to educational preferences or considerations of residence.

It is the theory of the University that technical knowledge and skill should be developed along with, and not at the expense of, those things which tend to the production of cultured and versatile men and women. Accordingly the technical work is closely associated with the related sciences, and students are required to divide their time fairly with those subjects that develop that general knowledge and breadth of view which characterize cultured people. The College holds that it is not enough to turn out skilled craftsmen, but that the call is for good citizens and competent men and women as well as for professional experts. Accordingly no inducement is held out that students can get satisfactory results along these lines with less time and labor than are required along other lines; and while students are received for a longer or shorter time as they may elect, yet the faculty urgently represent that a reasonable time should be devoted to preparation for life along these lines, as well as along other lines of educational effort or professional activity.

The College offers something over ninety courses of instruction in technical subjects, besides opportunity to elect from the scientific and literary offerings of the other colleges of the University. The elective system prevails, and with a few exceptions the student is left free to select those subjects which seem best fitted to meet his needs, always under the advice and guidance of the faculty. By this means, and through the offerings available, the student is not obliged to consume his time in what he does not want in order to get what he needs. In this way the instruction can be more thorough in the courses elected, and time can be saved for related subjects in the arts and sciences. The influence of the faculty is exerted to induce the student to divide his time about equally between the technical offerings of this College and the closely related non-technical offerings of other colleges.

Credit is given for all work accomplished, and this credit counts toward graduation if the student desires a degree.

#### ADMISSION

For the regulations in regard to admission to the College of Agriculture, see the general statement of the entrance requirements of the University, pp. 83-103.

# SCHOLARSHIPS IN AGRICULTURE AND HOUSEHOLD SCIENCE

The University offers every year to each county in the State, except Cook and Lake, and to each of the first ten congressional districts, one scholarship for prospective students of agriculture in the College of Agriculture and one for prospective students of household science, in the College of Literature and Arts, the College of Science, or the College of Agriculture.

Appointments to scholarships in agriculture are made by the Trustees of the University upon the recommendation of the executive committee of the Illinois Farmers' Institute; and to scholarships in Household Science upon the recommendation of the County Domestic Science Associations. Young men under sixteen years of age, young women under eighteen years of age, and those who have already attended the University are not eligible. Acceptable candidates, residents of counties or districts for which appointments have been made, may be assigned to counties or districts not yet represented.

The scholarships are good for two years and relieve the holders from the payment of the matriculation fee, \$10.00, and the incidental fee, \$24.00 a year. The term of scholarship may be extended four

years, if, before it expires, the holder satisfies in full the requirements for admission to the freshman class of the college in which he is enrolled.

#### FACILITIES FOR INSTRUCTION AND METHODS OF WORK

The technical courses are specialized, and each is taught by an instructor who makes that particular branch of knowledge his specialty.

The close affiliation of the College with the work of the Agricultural Experiment Station not only enables the University to support a larger faculty than would otherwise be possible, but also permits a much higher degree of specialization. For the most part those who teach in the College are the ones who conduct experiments in the same subjects in the Station, a fact that enriches the courses offered to students and insures that the instruction shall not be antiquated.

The methods of instruction vary with the nature of the courses. In general the laboratory method prevails, . Text-books are used whenever good ones are available. Both the laboratory and the text are supplemented by lectures and reference readings.

Buildings and laboratory space, illustrative specimens and material, and library facilities are provided and no pains or expense is spared to make the courses as profitable to the student as the present state of knowledge will permit. The personal attention of the instructor is most painstaking, and close application and a high degree of efficiency are expected of the student.

In connection with the following description of the work of the different departments, the special facilities are stated more in detail.

## AGRICULTURAL EXTENSION—TEACHERS' COURSES

The people of the rural communities have long been demanding that in the development of our educational policy recognition be given to agriculture as a subject in the secondary schools.

The high schools now pretty generally recognize the justice of this demand, and are beginning to see the pedagogic value of agriculture, at least in certain of its forms. They are ready to introduce this study into the curriculum as fully as local needs will justify and as soon as competent teachers can be found.

To aid in meeting the new conditions, and to assist in determining what aspects of agriculture are suitable for secondary school

purposes and how they should be taught, the College of Agriculture is now offering courses for teachers.

See Agricultural Extension in Part III for outlines of these courses; also see the General Course for Prospective Teachers of Agriculture, outlined on page 205.

#### AGRONOMY

The department of agronomy gives instruction in those subjects which relate especially to the field and its affairs, such as drainage, farm machinery, field crops, the physics and bacteriology of the soil, manures, rotation and fertility, plant breeding, the history of agriculture, farm management, and comparative agriculture. To the equipment and facilities for instruction in these subjects which the department itself possesses are added opportunities for contact with the research work of the Agricultural Experiment Station, especially in crop production, soil fertility, and plant breeding, both in the analytical and pot culture laboratories and on the experiment fields at the University and in other parts of the State.

Attention is called here to the fact that in case circumstances prohibit a regular four-year course, it is possible for a student who had had sufficient preparatory training so to arrange his studies as to obtain the necessary prerequisites and complete the general courses in soil physics and soil fertility in two years' time. (See Agronomy 9 and 12.)

## ANIMAL HUSBANDRY

In this department are given courses covering the separate study of sheep, swine, and beef cattle, and their products; heavy and light horses with their care and training; the management of herds, flocks, and studs; the principles and practice of feeding and of breeding; and the chemical, physiological, and bacteriological phases of animal nutrition.

For the study of animals about 400 pure-bred cattle, sheep, swine, and horses are constantly available in the herds, flock, and stud of the University, which are also used for investigations in feeding and breeding, as well as for the illustration of the type or types of each breed. These consist of Standard-bred, Morgan, Percheron, and English Shire horses; Shorthorn, Hereford, and Aberdeen-Angus cattle; Shropshire, Oxford, Southdown, Hampshire, Rambouillet, Dorset, and Cheviot sheep; Poland-China, Berkshire, Duroc Jersey, Chester White, Tamworth, and Yorkshire swine. In addition, large

numbers of animals are secured from time to time to illustrate the market classes and grades of live stock, and special attention is given to instruction in the selection of animals with reference to feed lot and market requirements. For the class work in stock judging a room with tan-bark floor is provided in the Agricultural Building, where specimen animals may be brought before the classes.

About 1,000 lantern slides and a collection of photographs, charts, diagrams, and models afford further material for the study of stock judging. The study of pedigrees and of the development of the various breeds is facilitated by 75 sets of different herd, stud, and flock registers, and complete files of the leading American and British live stock journals.

The equipment for instruction and investigation in the feeding, breeding, and management of live stock consists of modern buildings for the housing of beef cattle, swine, sheep, and horses, together with the appliances necessary for individual and collective feeding tests; brick-paved feed lots and open sheds, in which ten carloads of steers may be fed in comparison; a feed storage barn 44 by 72 feet, with various forms of grinding mills and other machinery for the preparation of feed; and various kinds of harness, vehicles, and other appliances for the training of horses. The department also maintains a cold storage room and other equipment for conducting demonstrations in the cutting and handling of meats; and a large collection of wool samples and a fiber testing machine and microscopes for the study of wool. The chemical, physiological, and bacteriological laboratories of the department afford opportunities for advanced work in animal nutrition.

#### DAIRY HUSBANDRY

In the department of dairy husbandry, six instructors give twelve courses in the general divisions of economic milk production, city milk supply, and dairy manufactures.

For the instruction in economic milk production, free use is made of the grade herd of cows, which is kept primarily for experimental purposes, and also of the pure bred herd of Holstein-Friesians, which numbers about 50 animals. The methods and principles of breeding pure-bred dairy cattle are illustrated in this herd, which contains many excellent and noted individuals. Types of the other dairy breeds—Jerseys, Guernseys, and Ayrshires—are illustrated by a few specimen animals of these breeds. These dairy herds afford facilities for instruction in judging dairy eattle, from both the dairy and the

breed standards. The actual business of economic milk production is illustrated by a twenty-acre dairy farm, conducted by the department for the purpose of producing the most milk possible per acre, at the least expense. The feeding and breeding experiments, while conducted primarily for the use of the Experiment Station, are of value to the student.

The instruction in city milk supply is illustrated in a dairy building used exclusively for the purpose of cooling and bottling the milk from the pure-bred herd for direct consumption. This milk is delivered each day in the cities of Urbana and Champaign. A laboratory is also maintained, where the latest machinery for preparing milk for the trade and bottling the same is used. To aid in the study of milk, a testing laboratory is provided with up-to-date apparatus for making the different tests on milk.

Facilities for instruction in the manufacture of butter and cheese are provided in the University creamery, where 150 pounds of butter fat are received each day in the form of milk and hand separator cream. This creamery is equipped with improved types of cream separators, pasteurizers, cream ripening vats, and churns. Experiments are carried on here in different methods of ripening cream and making butter. A chemical analysis is made of each churning in the department laboratory, and sample tubs are shipped to New York and Chicago, where they are scored by expert judges, and the effect of storage upon the quality of the goods determined.

#### HORTICULTURE

The department of horticulture offers instruction in thirty-nine distinct courses, covering work in the five divisions of horticulture (pomology, olericulture, floriculture, landscape gardening, and forestry); and also in certain subjects dealing with general principles and practices more or less applicable to all the divisions, such as plant propagation, spraying, the evolution of horticultural plants, and experimental horticulture.

For the instruction in pomology, use is made of the various fruit plantations maintained by the department, including four apple orchards of different ages, a plum orchard representing the leading varieties of European and Japanese as well as native plums, plantations of pears, peaches and cherrics, a vineyard of some fifty varieties of grapes trained on the Kniffin system, and lesser areas devoted to the various small fruits. This assortment of fruit trees and plants, together with an equipment in pruning tools, affords

facilities for practice in pruning. The products of the orchards are drawn upon for practice in the grading and packing of fruits and the study of systematic pomology. A collection of fruit packages is maintained, together with a series of models showing the construction of fruit storage houses. There is also a collection of wax models of fruits representing the principal varieties grown in Illinois.

For the use of students in olericulture, or vegetable gardening, certain areas of ground are reserved, on which the various garden operations are illustrated, and various crops are grown. In addition to the land, the equipment for instruction in vegetable gardening consists of hotbed frames and sash, seed drills and wheel hoes of various types, an assortment of hand tools, markers, planters, and other special tools, tying material, packing boxes, and accessories and appliances for the growing and handling of vegetables.

The facilities for instruction in floriculture have been increased by the erection of a modern greenhouse plant consisting of a service building and four glass houses, each  $105 \, r \, 28$  feet. While intended primarily for experimental purposes, this plant serves as an illustration of modern greenhouse construction and furnishes material for the work in commercial floriculture. Besides these houses the glass structures used by the department include two houses each  $68 \, x \, 20$  feet and one house  $40 \, x \, 24$  feet. An assortment of pots and other greenhouse supplies, together with a collection of plants, including geraniums, begonias, carnations, chrysanthemums, and bulbs in assortment, furnish facilities for work in amateur floriculture and certain branches of plant propagation.

The collection of ornamental shrubs and trees growing upon the campus furnishes material for plant studies in connection with the work in landscape gardening, while the plantings about the horticultural building and certain residences in the University community illustrate types of landscape design. A series of 500 lantern slides is used in the lectures in landscape gardening.

Instruction in forestry is facilitated by an extensive collection of native woods and a forest tree plantation of some thirty acres, consisting of Scotch pine, white pine, Norway spruce, European larch, green ash, black walnut, hickory, bur oak, white elm, and other species.

In addition to the material already mentioned as available for use in the course in plant propagation, the small fruit and grape plantations are drawn upon for material in making the various types of hardwood cuttings and in illustrating propagation by layers, suckers, etc. Scions are cut from the orchards, and seedling stocks are purchased in quantity each year for the work in grafting. An herbarium of cultivated plants furnishes material for the study of the relationships and classification of economic and ornamental plants.

#### HOUSEHOLD SCIENCE

The courses of instruction given in this department are planned to meet the needs of two classes of students, viz.: (a) those students who specialize in other lines of work, but desire a knowledge of the general principles and facts of household science; (b) those students who wish to make a specialty of household science.

Although the main work is scientific and technical, the importance of an artistic and literary training for home life is not lost sight of, and ample opportunity is given for a study of subjects of that character. Indeed, a considerable amount of art and design, English, history, and foreign language is required of students in the course. Opportunity is given, moreover, for increasing the amount of liberal, scientific, or technical subjects by leaving the way open for a certain number of electives.

Of the one hundred and thirty hours required for graduation, ninety-eight are provided for in the prescribed list and the restricted electives of List A (see page 204). The remaining thirty-two hours of credit necessary for graduation may be taken, subject to the approval of the Dean of the College, from any courses offered in the University. Holders of scholarships in household science in this college take the course as laid out here. Variations from it can be made only by special permission of the Council of Administration on recommendation of the faculty of the college.

The department of household science is housed in the north wing of the Woman's Building. Two kitchens, a laboratory, a pantry, and a dining room give opportunity for practice in various kinds of work with food. Two rooms are devoted to the study of clothing on its artistic and economic side. These are supplied with charts showing the history of costume and with illustrative material in the form of textile fabrics. The lecture and recitation rooms are provided with various household appliances, house plans, and materials for house furnishings.

This course is designed to provide an education in those branches that especially serve the interests of women students.

#### REQUIREMENTS FOR GRADUATION

Students who have satisfied all matriculation requirements and have maintained throughout their course a satisfactory record of scholarship and moral character will be graduated with the degree of Bachelor of Science, upon having completed the studies of the prescribed list and sufficient electives to make a total of (at least) 130 semester hours.

A thesis is not required for graduation, but any student who has completed not less than 90 hours of credit before the senior year may then elect a thesis course in any department (subject to the approval of the head thereof) in which he has done at least 20 hours' work.

For this purpose animal husbandry will admit credits in thremmatology to the extent of five hours. Thremmatology will admit all work in animals and plants relating to type or function, whether done in agricultural departments or in those of botany or zoology, but does not include credits in crop or animal production.

#### GENERAL COURSE IN AGRICULTURE

#### PRESCRIBED SUBJECTS

Required for the Degree of Bachelor of Science in General Course in Agriculture

Agronomy 6 or 7, 9, 12, 15; 131/2 hours Animal Husbandry 7: 21/2 hours Botany 1, 12; 6 hours 1 Chemistry 1, 2, 3, 13a; 15 hours Dairy Husbandry 1; 3 hours 2 Economics 2: 2 hours 3 English Literature 1; 4 hours Entomology 4; 21/2 hours Horticulture 1, 10a; 8 hours Military 1, 2; 5 hours Physical Training 1, 3; 2 hours Rhetoric 1; 6 hours Thremmatology 1; 5 hours Zoology 10; 5 hours Elective List A; a minimum of 41/2 hours Elective List B; a minimum of 3 hours Elective List C; a minimum of 25 hours

<sup>&</sup>lt;sup>1</sup>Botany 12 is not required of students who elect Botany 5, and no credit will be allowed to such students in this course.

<sup>2</sup>Not required of students specializing in dairy husbandry.

<sup>3</sup>To be elected in the junior or senior year.

In addition to the foregoing, students who have not offered three units of the *same* foreign language for matriculation (commonly three years of high school work) will be required to offer one of the following at their option:

- 1. Two years of entrance and eight hours of university credit in foreign language. Except by special permission these credits should be in the same language.
  - 2. Sixteen university credits in the same foreign language.
- 3. Eight hours of university credit in English literature in addition to the standard requirement, together with eight hours of economics, or eight hours of history, or eight hours of education.

#### ELECTIVE LISTS

List A.—Animal Husbandry 1 to 4, 11 to 14, 17 to 18, 22.

Dairy Husbandry 2.

List B.—English Literature 2, 16, 23.

Rhetoric 16, 20, 12a, 3.

List C.—This list includes all subjects offered in technical agriculture and not included in the prescribed list, viz.—

Agricultural Extension 1, 3, 4. Agronomy 1 to 8, 10, 13, 16 to 22. Animal Husbandry 1 to 4, 8 to 14, 16, 18, 21, 22. Dairy Husbandry 2, 7, 8, 11 to 21. Horticulture 2 to 9, 10b to 15b, 17 to 34.

Veterinary 2, 4, 5, 6.

## GENERAL COURSE IN FLORICULTURE

The object of this course is to give instruction in those branches which will best fit men and women for the profession of floriculture. It includes first those technical subjects of which every florist should have a working knowledge. Other subjects have been added which serve to broaden the student and are necessary for a successful career. The laboratory exercises in the technical subjects consist of practical work in the greenhouses and garden and will give the student a working knowledge of the best methods now in use.

## PRESCRIBED SUBJECTS

Required for the Degree of Bachelor of Science in Floriculture Agronomy 6, 9, 12; 12½ hours Botany 1, 2, 7; 15 hours

Chemistry 1, 2, 3, 13a; 15 hours

Economics 2; 2 hours

English Literature 1; 4 hours

Entomology 4; 21/2 hours

Horticulture 1, 4, 5, 7, 10, 12, 15a, 15b, 30, 31, 32; 43½ hours Mechanical Engineering 49; 1 hour

Military 1, 2; 5 hours

Physical Training 1, 3; 2 hours

Rhetoric 1; 6 hours

Thremmatology 1; 5 hours

Zoology 10; 5 hours

Electives 111/2 hours

In addition to the foregoing, students who have not offered three units of the *same* foreign language for matriculation (commonly three years of high school work) will be required to offer one of the following at their option:

- 1. Two years of entrance and eight hours of university credit in foreign language. Except by special permission these credits should be in the same language.
  - 2. Sixteen university credits in the same foreign language.
- 3. Eight hours of university credit in English literature in addition to the standard requirement, together with eight hours of economics, or eight hours of history, or eight hours of education.

#### GENERAL COURSE IN LANDSCAPE GARDENING

The work in landscape gardening is twofold: (1) Instruction of an elementary character for one semester, for all who are working for a baccalaureate degree in Agriculture; (2) a four years' course, in preparation for professional landscape gardening.

The intention of the latter course is to give thorough training in design as applied to landscape gardening, and, at the same time, to provide means by which the artistic ideas can be executed. Other subjects are included to broaden the student's horizon and give an acquaintance with the liberal arts.

The artistic instruction of the course consists of work in composition throughout the four years, two years being given to architectural design and the rest to landscape design. This is supplemented by another almost continuous course in freehand drawing and the use of water-colors. Technique, or the means of execution of art ideas, is provided, first, through some acquaintance with engineering methods, such as surveying, road construction, grading, and wall building; and, second, through a knowledge of horticulture where a

familiarity with plants and their propagation, culture, and care are emphasized, together with such practice as will enable a student to make a reasonable planting plan.

This work is accompanied by the allied sciences and by such general subjects as a modern language, rhetoric, and history.

#### REQUIREMENTS FOR GRADUATION

Students are graduated with the degree of Bachelor of Science in Landscape Gardening upon completing the following work:

- 1. The studies of the prescribed list.
- 2. Sufficient electives, which may be any University courses approved by the department of Horticulture, to make a total of 130 hours.

#### PRESCRIBED SUBJECTS

Required for the Degree of Bachelor of Science in Landscape Gardening

Art and Design 1, 2 or 3, 4; 18 hours

Botany 11; 5 hours

Horticulture 5, 10a, 10b, 19, 23, 24, 25, 26, 28, 29; 301/2 hours

Architecture 6, 8, 14, 16 or 23, 18, 22, 32; 25 or 26 hours

Civil Engineering 1, 21, 22; 11 hours

Drawing (General Engineering) 1, 2; 8 hours

Economics 2; 2 hours

Entomology 4; 21/2 hours

Foreign language; 8 hours

Mathematics 4; 2 hours Military 1, 2; 5 hours

Physical Training 1, 3; 2 hours

Rhetoric 1; 6 hours

#### ELECTIVES

Students are earnestly advised to make the course a five-year one and to include the following subjects:

Agronomy 1, 9; 71/2 hours

Architecture 2, 3, 4, 10, 12, 41; 15 hours

Art and Design 19; 6 hours

Chemistry 1; 5 hours

History 1: 6 hours

Horticulture 4, 25, 27; 8 hours

Mathematics 2; 3 hours

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## GENERAL COURSE IN HOUSEHOLD SCIENCE

#### PRESCRIBED SUBJECTS

Required for the Degree of Bachelor of Science in General Course in Household Science

Architecture 29a and 29b; 4 hours

Art and Design 1, Architecture 41; 4 hours

Botany 1, 5; 10 hours

Chemistry 1, 2 and 3; 10 hours

English 1, 2; 8 hours

History 1 or 3; 6 or 8 hours

Household Science 1, 2, 3, 5, 6, 7, 10, 12; 20 hours

Physiology 4; 5 hours

Physical Training 7, Physiology 6; 3 hours

Rhetoric 1; 6 hours

In addition to the foregoing, students will elect as follows:

Zoology, 5 hours

English or rhetoric, 5 hours

\*Elective List A, a minimum of 4 hours

#### ELECTIVES

List A.—Agronomy 5, 6, 15

Animal Husbandry 10

Dairy Husbandry 1, 14, 19

English 19, 24

Horticulture 1, 2, 3, 19, 28

Household Science 5, 10, 12

Economics 2, Sociology 1

Physics 2a and 2b

Education 1, 2 or 6

In addition to the foregoing, students who have not offered three units of the *same* foreign language for matriculation (commonly three years of high school work) will be required to offer one of the following at their option:

1. Two years of entrance and eight hours of university credit in foreign language. Except by special permission these credits should be in the same language.

2. Sixteen university credits in the same foreign language.

3. Eight hours of university credit in English literature in addition to the standard requirement, together with eight hours of economics, or eight hours of history, or eight hours of education.

<sup>\*</sup>If physics has not been offered for entrance, its equivalent should be elected.

# GENERAL COURSE FOR PROSPECTIVE TEACHERS OF AGRICULTURE\*

#### PRESCRIBED SUBJECTS

Required for the Degree of Bachelor of Science in the General Course for Teachers of Agriculture

Agronomy 5, 6, 9, 12, 15, 21; 21 hours

Animal Husbandry 1a, 2a, 4, 7, 11, 13, 21; 161/2 hours

Dairy Husbandry 1, 2, 16; 8 hours

Horticulture 1, 3, 5†, 10, 19; 151/2 hours

Agricultural Extension 1 (Secondary School Agriculture), 3; 6 hours

Thremmatology 1†; 21/2 hours

Botany 1, 12; 6 hours

Chemistry 1, 2, 3, 13a; 15 hours

Entomology 4; 21/2 hours

Zoology 10; 5 hours

English 1; 4 hours

Rhetoric 1, 5, 7; 9 hours

Economics 2: 2 hours

Education 1, 6; 8 hours

Library Science 12; 2 hours

Military 1, 2; 5 hours

Physical Training 1, 3; 2 hours

In addition to the foregoing, students who have not offered three units of the *same* foreign language for matriculation (commonly three years of high school work) will be required to offer one of the following at their option:

- 1. Two years of entrance and eight hours of university credit in foreign language. Except by special permission these credits should be in the same language.
  - 2. Sixteen university credits in the same foreign language.
- 3. Eight hours of university credit in English literature in addition to the standard requirement, together with eight hours of economics, or eight hours of history, or eight hours of education.

Students taking this course for the degree of Bachelor of Science will be required to complete the subjects in this list which makes a total of 130 semester hours.

<sup>†</sup>Students taking the Teachers' Course may take Horticulture 5 and thermatology 1 for one-half semester and receive  $2\frac{1}{2}$  credits for each course.

# THE GRADUATE SCHOOL

#### THE EXECUTIVE FACULTY

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

- David Kinley, Ph.D., LL.D., Dean of the Graduate School and Professor of Economics
- THOMAS JONATHAN BURRILL, Ph.D., LL.D., Vice-President, Professor of Botany
- STEPHEN ALFRED FORBES, Ph.D., LL.D., Director of the Illinois State Laboratory of Natural History and State Entomologist, Professor of Entomology
- ALBERT PRUDEN CARMAN, A.M., D.Sc., Professor of Physics
- WILLIAM FREEMAN MYRICK GOSS, D.Eng., Dean of the College of Engineering, Director of the School of Railway Engineering and Administration
- GUY STANTON FORD, Ph.D., Professor of Modern European History GEORGE ABRAM MILLER, Ph.D., Professor of Mathematics
- WILLIAM ALBERT NOYES, Ph.D., Professor of Chemistry and Director of the Chemical Laboratory
- JULIUS GOEBEL, Ph.D., Professor of the Germanic Languages
- Louie Henrie Smith, Ph.D., Assistant Professor of Plant Breeding, Assistant Chief of Plant Breeding in the Agricultural Experiment Station

#### HISTORY AND ORGANIZATION

Although for many years the University of Illinois has offered advanced students facilities for study and research in various lines, graduate work was undertaken under the name of the Graduate School for the first time in 1892. Beginning with that year each department offered such work as it could, without the organization of a separate graduate school faculty. In 1894 the administration of the school was vested in the Council of Administration, and the Vice-President of the University became Dean of the School. As

yet, however, the School had no faculty apart from the faculties of the undergraduate colleges.

In 1906 the Graduate School was organized as a separate faculty, consisting of a dean and members of the University faculty assigned to this duty by the President. No separate means of support were provided, however. In the winter of 1906-7, the Forty-fifth General Assembly of the State passed an act appropriating \$50,000 per year for the support of a Graduate School of the Arts and Sciences in the State University. This is the first time that a State Legislature has made a specific appropriation for such a purpose, and the act is noteworthy as committing a democratic government definitely to the promotion of advanced scholarship and research in subjects which are cultural as well as practical.

By act of the Trustees the teaching faculty of the Graduate School includes all members of the University faculty who give instruction in courses approved for graduate credit. The affairs of the School, however, are in charge of the executive faculty, consisting of the dean and from ten to twelve other members appointed each year by the President.

#### ADMISSION

Admission to the Graduate School is conditioned upon the presentation of credentials showing that the applicant holds a first degree either from the University of Illinois or from some other university or college of approved standing. Admission to particular graduate courses or departments may be secured only by those who have had the requisite undergraduate work in those courses or departments. If any student wishes to take graduate work in a department in which he has not the necessary preliminary training, he must secure this preparation in the undergraduate courses without credit towards an advanced degree.

In order to be enrolled as a member of the Graduate School a student must be doing graduate work. The possession of a first degree does not entitle a student to be enrolled in the Graduate School, if the courses which he is taking are undergraduate.

Students of mature age, who do not hold a first degree, but satisfy the Dean of the School and the officers of the departments in which they wish to work of their earnestness of purpose and special fitness, may be permitted to take work in the Graduate School without reference to candidacy for a degree. In order to secure this permission, however, a candidate must have had such preliminary preparation for the work he wishes to take up as would justify his

admission to the Graduate School as a candidate for a degree if he could meet the formal requirements.

Application blanks for admission may be secured from the Dean of the Graduate School or from the Registrar of the University, and these, properly filled out, should be filed, with such documentary matter as the candidate can offer showing qualifications for membership, not later than the registration days.

## REGISTRATION

Each graduate student must register when he first connects himself with the University, and afterwards at the beginning of each semester. The first registration, however, or that upon entrance, is permitted only after the student's application for admission to the Graduate School, setting forth his educational attainments, has been duly approved.

After the application for admission has been approved, the student receives from the Dean a permit to register and also a study blank. This study blank must be filled out with the advice of the professors in charge of the selected work. The student must then pay his fees at the Business Office, secure a receipt therefor, and return this receipt with the approved study blank to the Dean.

Each student is required to attend a minimum of four class, lecture, or laboratory exercises a week, in the first year of his graduate study; in no case is he permitted during his course to attend more than twelve exercises a week.

Residence.—Excepting as noted above, continuous residence and study are required of all members of the Graduate School, unless they are granted leave of absence by the Dean, upon recommendation of the professors in charge of their work, for the purpose of carrying on elsewhere studies or investigation in the line of work for their degrees.

#### CHARACTER OF GRADUATE WORK

The work expected from graduate students is different in character from that usually demanded from undergraduates. Regularity of attendance, wide knowledge, and ability to meet examination tests are of secondary importance. The principal aim of graduate study is the development of the power of independent work and the promotion of the spirit of research. Consequently, before he can get his degree, each graduate student is expected to show that he has acquired the power of independent research. In addition, each

candidate is expected to have a wide knowledge of his subject and of related fields of work, for the graduate student is not expected to get from lecture and laboratory courses all the knowledge and training necessary to meet the requirements for his degree. The class, lecture, or laboratory course is intended to present the principles or theory of the subject and serve as a model or guide to the student in his private reading and research.

Students are warned against restricting themselves merely to the courses prescribed or suggested by the departments in which they are studying. Each student is expected to do a wide range of private reading and study; and in many cases will find it advisable to take one or more courses of lectures quite outside the field of his chosen subjects.

#### THE MASTERS' DEGREES

Candidates for the degree of Master of Arts or Master of Science are required to do one year's work in residence and to write a thesis.

The mention of one year as the required residence period does not imply, however, that a degree will be obtained in one year. If the candidate is inadequately prepared, or if his time and strength are impaired during the first year of residence by other matters, he will be required to spend a longer time.

While the work of a candidate for a master's degree consists largely in a broadening of the knowledge of his subjects of study, and not, to so great an extent, at any rate, as in the case of the candidate for the doctorate, in the development of the power of original research; nevertheless, the work of the candidate must be of a high order and must be such as to satisfy the faculty that he has done more than merely acquire a certain amount of knowledge by rote.

Each candidate for a master's degree may do all his work in one subject, or he may select a major and one minor, or a major and two minors. A major or minor denotes the field of knowledge of a department, or such part thereof as constitutes a separate and independent division of that field. However, the candidate must do at least half his work in his major subject. Each candidate for a master's degree is also required to present a thesis on some subject approved by the professor in charge of his major work and the Dean of the School. The requirement of a thesis may be waived, however, upon the recommendation of the head of the department in which the student is doing his major work, and with the

approval of the Dean. Permission to take the degree without a thesis must be obtained not later than the latest date for the approval of thesis subjects, as shown by the calendar.

Graduates of this University, but no others, are permitted to secure their degrees on doing one year's full work in absentia; but this work must be spread over at least three years from the time of registration. All such students must make out the usual application for admission, must submit their proposed courses of study to the Dean, whose approval, together with that of the professor in charge of the work, is necessary, before the student can be enrolled. Work in absentia is not permitted unless the student satisfies the Dean and the professors in charge of his work that he has the facilities to do it properly.

Candidates who are working for a master's degree in absentia, without a thesis, must present themselves at the University for examination not later than the first Monday of June of the year in which they wish their degree,

The completed theses of non-resident candidates for degrees must be filed by April first.

#### THE MASTER'S DEGREE IN ENGINEERING

Two classes of second degrees are open to graduates of the College of Engineering, namely, academic and professional.

The academic second degree in engineering is Master of Science, following Bachelor of Science in Architecture, Architectural Engineering, Civil Engineering, Electrical Engineering, etc. This degree is conferred in accordance with the regulations described above for work in residence only.

The professional second degrees in engineering are as follows:

Master of Architecture, after B. S. in Architecture.

Architectural Engineer, after B. S. in Architectural Engineering. Civil Engineer, after B. S. in Civil Engineering or B. S. in Municipal and Sanitary Engineering.

Electrical Engineer, after B. S. in Electrical Engineering. Mechanical Engineer, after B. S. in Mechanical Engineering.

Mining Engineer, after B. S. in Mining Engineering.

Civil Engineer, Electrical Engineer, or Mechanical Engineer, after B. S. in Railway Engineering, according to the course.

Professional degrees are conferred upon two classes of candidates:
1. Graduates of the College of Engineering of the University of Illinois who have been engaged in acceptable professional work away from the University for a period of not less than three years after

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receiving the degree of Bachelor of Science. 2. Graduates of the University of Illinois, or of institutions of equal standing, who have been engaged in acceptable professional work in residence at the University for a period of not less than three years after receiving the degree of Bachelor of Science.

In "acceptable professional work" may be included contributions to technical literature, activity in professional societies, investigations of engineering problems, and the teaching of engineering subjects.

A candidate must declare his candidacy, and file with the Dean of the College of Engineering, as chairman of the committee in charge, a detailed statement covering his professional study and experience, not later than the first Monday in November preceding the commencement at which he purposes to qualify. Prior to December 31 next succeeding, he must submit for approval an outline of his proposed thesis, and he must file his completed thesis not later than April 1. If the statement of professional experience and study and the thesis are acceptable, the candidate must present himself at commencement in order to receive the degree.

Candidates for professional engineering degrees who already hold the degree of Master of Science, may qualify for the professional degree after two years of professional work, other conditions being the same as those prescribed for candidates holding the degree of Bachelor of Science.

#### THE DEGREE OF DOCTOR OF PHILOSOPHY

General Statement of Requirements.—The requirements for the degree of Doctor of Philosophy are a thorough mastery of a selected field of study, evidence of the power of independent investigation in this field, a broad knowledge of the wider field of study of which this major subject is a part, a general acquaintance with related fields of knowledge, and a mastery of all branches of study which are necessary to a full knowledge of the main subject. Each student who is seeking this degree is expected to choose for study and final examination a major subject, or field of study, and a first and second minor. The major subject is the field in which the student expects to become expert and an authority. The first minor must be a subject closely related to the major and may, under certain conditions and with proper approval, be a sub-division of the major field of study. The second minor should be chosen outside of the major field of study.

When a candidate chooses any subject as his major, and a division of that subject as his first minor, he is not permitted to choose as a

second minor any division of work in that same department, excepting by vote of the executive faculty of the School.

The candidate's list of subjects must receive the approval of the head of the department in which he chooses his major work and of the Dean of the School.

Period of Study.—The minimum period of study required for securing the degree of Doctor of Philosophy is three years, and if a candidate of ability enters the Graduate School fully qualified to take up immediately the work leading to a doctorate and devotes all his time to the pursuit of his purpose, he will usually succeed in getting his degree at the end of three years. If, however, he begins his work without full preparation, or his strength is partly devoted to other matters, he will be required to spend a longer time. In any case, the degree is conferred not for residence during a certain period, but for scholarly attainments and power of investigation, as proved by thesis and examinations.

Candidates should note that "credit" is not given for work done in other universities, excepting in the sense that their residence at other institutions is counted towards the residence requirement for the doctor's degree. The candidate is examined here on the subjects offered by him for the advanced degree.

At least the first two or the last one of the three years required must be spent at this University.

Examinations.—Towards the end of his second year of study, or, by special permission, at the beginning of his third year, the candidate for the degree must submit to a preliminary examination conducted by the members of the faculty with whom he is doing his principal work, in order to determine whether he will be accepted as a candidate for the degree in the following year. This examination is partly oral, and may be wholly so. At this time, or before, the candidate will be required to demonstrate his ability to read French and German, and any other language needed for the prosecution of his work. Excepting where the chosen field of study itself includes the languages, the examinations in languages are conducted simply to determine whether the student is able to use the language as a tool for the purpose of investigation.

On or before the last Monday in May of the year in which the candidate expects to come up for his degree, he must submit to a final examination by a committee appointed by the Dean of the Graduate School. This examination will be partly written. The candidate will also have, however, an oral examination. These examina-

tions will not be confined to the courses which the candidate has attended in the University of Illinois only, if he has done part of the work elsewhere; nor even to the field covered by the courses specifically taken in this or other universities; but will be so conducted as to determine whether the candidate has a satisfactory grasp of his major subject as a whole, and a general acquaintance with the broad fields of knowledge represented by his course of study.

Before the candidate is admitted to the final examination and the defense of his thesis, he may be required to take any other examination, oral or written, that is thought proper by the various departments in which he has studied. If, after having passed his preliminary examination, he fails in the third year of his study to meet the expectations of the professors in charge of his work, or in any way fails to maintain the standard of scholarship and power of research expected of him, he may be refused admission to the final examination.

The final examination in the major and minor subjects may not be divided. The examination must be taken all at one time even though it requires several sessions.

Thesis.—The power of independent research must be shown by the production of a thesis on some topic connected with the major subject of study. The thesis must be the result of the author's own investigation. Acquaintance with the literature of the subject will not secure the acceptance of the thesis if it does not show real power of research. The candidate is expected to defend his thesis or dissertation before the members of the faculty, or as many of them as may wish to question him about it, in connection with his final examination.

The subject of the thesis should be chosen not later than the end of the second year of study and must be submitted for formal approval not later than the first Monday of November of the year when the degree is expected. A typewritten copy of the completed thesis must be in the hands of the Dean not later than noon of May thirteenth.

The thesis must be printed and one hundred copies deposited in the library of the University before the degree is conferred. If, for any reason, the thesis cannot be printed and one hundred copies deposited before commencement time, the candidate must, before the first Monday in June, deposit a bond acceptable to the Comptroller of the University and the Dean of the Graduate School for the cost of printing his thesis, or such part thereof as may be regarded as sufficient to meet the requirements of the rules.

The title page of each thesis must bear the words "Submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in —(here put the major subject), in the Graduate School of the University of Illinois." The title page must also contain the full name of the author, the full title of the thesis, the year of imprint, and, if a reprint, the title, the volume and a statement of the pagination of the volume from which it is reprinted. Each thesis must have an appendix giving a short educational history of the candidate, including the institutions he has attended, his degrees and honors, the title of his publications, and such other matters as may be pertinent.

#### SCHOLARSHIPS AND FELLOWSHIPS

A number of fellowships and scholarships have been established by the Trustees of the University. To first year graduate students of ability and promise there are open a number of scholarships with a stipend of \$250 each and freedom from tuition, incidental, and laboratory fees. To second and third year graduate students, that is, those who have had one or two years of graduate study, there are open fellowships with a stipend varying from \$300 to \$500, with freedom from fees. The larger stipends are given only to students who are expected to take their degrees within the year. Each holder of a fellowship must pay the matriculation fee of ten dollars, unless he holds a first degree from the University of Illinois, and also the diploma fee of five dollars on receiving his diploma.

Candidates for these scholarships and fellowships must be graduates of the University of Illinois, or of colleges or universities having equivalent requirements for bachelors' degrees.

Application must be made upon blanks provided for the purpose, to be obtained from the Dean of the Graduate School. These application forms should be addressed to the Dean of the Graduate School as early as possible in February of the academic year preceding that for which the fellowship is desired.

Applications for scholarships and fellowships should be accompanied with full information concerning the applicant, and with any written or printed essays or results of investigation which he can submit.

Applicants for fellowships are required to send the Dean of the Graduate School notice of their acceptance or refusal; and to agree

that, if accepted, the fellowship will not be resigned to take a fellowship in any other institution during the year for which it is awarded.

Nominations to fellowships are made upon the grounds of worthiness of character, scholastic attainments, and promise of success in the principal line of study or research to which the candidate proposes to devote himself.

Scholars and fellows are members of the Graduate School and have all the privileges and bear all the responsibilities of such membership.

Scholarships and fellowships are good for one year only, but may be renewed for a second or a third year in special cases. An appointment as honorary fellow, without stipend, may be made as specified for paid fellowships in the case of any one who has shown distinguished merit in his work.

Fellows may be required to assist in laboratories or classes in furtherance of their training for careers as investigators or teachers.

# RESEARCH FELLOWSHIPS IN THE ENGINEERING EXPERIMENT STATION

The Engineering Experiment Station, devoted entirely to research, was established by action of the Board of Trustees, December 8, 1903. Its purposes are the stimulation and elevation of engineering education, and the study of problems of special importance to professional engineers and to the manufacturing, railway, mining, and industrial interests of the State and the country.

Ten fellowships, each of five hundred dollars a year, have been established in the Engineering Experiment Station. Applicants to whom these fellowships are awarded are required to agree to hold them for two years, devoting a part of their time to work in the Engineering Experiment Station of the University. Application for these fellowships should be made to the Director of the Engineering Experiment Station.

# THE LIBRARY SCHOOL

#### FACULTY

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

PHINEAS LAWRENCE WINDSOR, Ph.B., Director, Professor of Library Economy

Albert Sherwood Wilson, A.M., B.D., Assistant Director, Assistant Professor of Library Economy

Frances Simpson, M.L., B.L.S., Assistant Professor of Library Economy

Anna May Price, A.M., B.L.S., Assistant Professor of Library Economy

FLORENCE RISING CURTIS, Instructor in Library Economy
EDNA LYMAN, Special Lecturer, Library work with children

Francis Keese Wynkoop Drury, A.M., B.L.S., Lecturer, Order work
Philip Sanford Goulding, A.B., Lecturer, Cataloging
Jacob Hodnefield, A.M., Lecturer, Exchanges
Margaret Hutchins, A.B., B.L.S., Lecturer, General reference
Alice Sarah Johnson, B.L.S., Lecturer, General reference

For a description of the Library Building, see p. 67; for an account of the libraries themselves, see pp. 74-76; for the collection in library economy, see p. 75; for fees, see p. 121.

#### AIM AND SCOPE

It is the purpose of the Library School to offer a two years' course of instruction to students who wish to enter library work as a profession, and to offer certain library courses to students in other schools and colleges of the University of Illinois who may

wish to elect them as a part of their course of training. The course is planned so that students who complete the first or junior year's work are prepared to accept the less responsible positions in library service, the schedule of courses in this year being so arranged as to cover the generally accepted methods and practices in modern library work. In the second or senior year some of the junior subjects are gone over more intensively, greater emphasis being placed upon historical and comparative methods of treatment; other subjects are introduced to give the student a broad outlook and a scholarly, technical, and administrative equipment for the more responsible positions.

One or two years of training will not take the place of years of experience, but they will make the student more adaptable and his general library service more intelligent. The practical work of the course amounts to over three months of time, counting eight hours a day, and this is more valuable, because more varied, than if taken in three consecutive months in any one library. Moreover, the library school student has the benefit of comparative study, while the apprentice becomes skillful in the ways of one library only. Although stress is laid upon simplicity and economy, elaborate methods are taught to enable students to work in large libraries where such methods and bibliographic exactness are required. Emphasis is laid upon the extension of the activities of the public library, and upon the importance of co-operation between the library and the schools and other educational agencies.

A student in any other school or college of the University of Illinois may elect any course for which he is prepared. These courses will help the student in general reading, in research work, in club work, as high school teachers, or as members of a library committee or a board of trustees. The school also offers a course of eighteen hours on the use of the library and the ordinary reference books, which will help in general reading or study.

## ADMISSION

At present the minimum requirements for admission to the Library School are three years' work, amounting to ninety-eight credits in the College of Literature and Arts or the College of Science of the University of Illinois, or an equivalent amount in some college or university of recognized standing.

Beginning with September, 1911, admission to the Library School will be conditioned upon the presentation of credentials showing that

the applicant possesses a bachelor's degree in arts or sciences either of the University of Illinois or of some other college or university of approved standing.

#### ADVANCED STANDING

College graduates who have had approved library experience or who have attended other library schools may be accorded advanced standing by securing credit for some of the courses required for graduation. After satisfying all entrance requirements and after matriculation, the applicant for advanced standing may secure such credit either by examination or by transfer of credits from another institution offering courses in library economy.

#### SPECIAL STUDENTS

It is the practice of this School to admit as special students only those mature persons who, though unable to meet the formal requirements for entrance, are substantially prepared for thorough and advanced work. Such persons must present evidence of possessing the requisite information and ability to pursue profitably, as special students, the chosen subjects, and some substitute for the regular requirements for entrance, such as approved library or teaching experience, foreign travel, etc. Preference will be given to those already engaged in library work, especially in Illinois, who may desire more adequate training in particular subjects.

#### LIBRARY VISITS AND FIELD WORK

During the junior year the students visit as many libraries as possible in central Illinois, while the senior students spend one week visiting the various libraries of Chicago, and also certain of its book-binderies, printing establishments, and book-stores.

In order to assure a varied library experience, each student in the senior year is required to spend one month in an assigned public library, working, as far as practicable, under the same conditions as a member of the staff of that library.

#### SCHEDULE OF COURSE

The course is two years in length. For graduation a student must receive credit for all courses except those marked with an asterisk (\*), which are elective. The degree of Bachelor of Library Science is conferred on a student who has completed the two years' course.

hrs.).

FIRST SEMESTER

#### JUNIOR YEAR

	Defeners monte (O has)	0	D-4
2	Reference work (3 hrs.),	2	Reference work (3 hrs.).
2	Selection of books (2 hrs.).	2	Selection of books (2 hrs.).
O.		U	Belection of books (2 mis.).
3	Practice work, 4 hours per	4	Practice work, 4 hours per
	week (2 hrs.).		week (2 hrs.).
16	Order, accession, and shelf	7	History of libraries (2 hrs.).
	work (2 hrs.).	19	Trade bibliography (1 hr.).
17	Classification and book num-	20	Loan department (1 hr.).
	bers (2 hrs.).	21	Printing, binding, indexing
18 23	Cataloging (4 hrs.).		(2 hrs.).
23	Library administration and	22	Library extension (3 hrs.).
	current library literature (1	23	Library administration and
	hr.).		
	шг.).		current library literature (1

hr.).

# SENIOR YEAR

	FIRST SEMESTER		SECOND SEMESTER
6	Subject bibliography (2 hrs.).	6	Subject bibliography (2 hrs.).
8	*Advanced reference work (2	9	* Bookmaking (2 hrs.).
	hrs.).	10	Practice work, 8 hours per
10	Practice work, 8 hours per		week (4 hrs.).
	week (4 hrs.).	13	* Public documents (2 hrs.).
13	Public documents (2 hrs.).	15	Seminar (2 hrs.).
15	Seminar (2 hrs.).	24	Selection of books (2 hrs.).
13 15 24 27	Selection of books (2 hrs.).	25	Advanced classification and
27	Bibliographical institutions		cataloging (1 hr.).
	(1 hr.).	26	Library administration (3
26	Library administration (3		hrs.).

# \*Practice work in various departments of the library (1 to 4 hrs.)

SECOND SEMESTER

#### LIBRARY CLUB

Any member of the Library School faculty or of the staff of the University Library and any student in the Library School may become a member. Six meetings are held each year to discuss professional questions.

# THE SCHOOL OF MUSIC

#### FACULTY

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

CHARLES HENRY MILLS, Mus.B., F.R.C.O., Director, Professor of Music

George Foss Schwartz, A.B., M.B., Associate, Musical Theory

Constance Barlow-Smith, Instructor, Sight Singing, Ear Training, and Public School Methods

HENRI JACOBUS VAN DEN BERG, Instructor, Piano

Albert Austin Harding, Instructor, Band Instruments

George Rawson Wade, Instructor, Voice; in charge of the Vocal Department

MAY ELIZABETH FLOYD, Instructor, Piano

Lois Derwentwater McCobb, Instructor, Voice

FLORENCE MARY KIRKUP, Instructor, Voice

Edith G. Bratton, Instructor, Violin

SOPHIE MARY VOSS, B.M., Instructor, Piano

# ADMISSION AND FEES

See the general statement of the entrance requirements of the University, p. 83.

For fees, see p. 121.

## AIMS AND SCOPE

The School of Music offers regular courses leading to the degree of Bachelor of Music, and a teacher's certificate in the department of public school methods, and furnishes opportunity to students not candidates for a degree to spend an indefinite amount of time in the study of an instrument or of the voice. A series of lectures and recitals is given each year. Only artists of the best reputation appear. Music students are admitted free, and are required to attend these concerts.

The instructors in the School of Music give recitals and lectures on musical subjects during the year.

The course in the history of music, as well as the work in the University Orchestra and the University Choral Society, may be taken by students in other departments.

# REQUIREMENTS FOR GRADUATION

Credit for 130 semester hours\*, including military and physical training credit, together with an acceptable thesis, is required for graduation. The thesis must be on a topic related to music.

Students completing the course in public school methods are granted teachers' certificates. This course is a professional one designed to prepare students for positions as teachers of music in the public schools. The required subjects are musical history, theory, eartraining, sight-singing, voice, piano, choral society, conducting, and methods of teaching. An opportunity for practice teaching is offered.

Students who are not working for the degree in music may receive a statement from their instructors upon completing not less than one year of college work.

Special and preparatory music students are required to take, in addition to their music, a certain amount of other work.

Classes in ear-training meet twice each week. The fundamental principles of musical notation are studied thoroughly, and the ear is trained to recognize intervals, chords, etc., so that the student may eventually think music. Music students are required to attend these classes.

The sight-singing classes meet twice each week. This work is required of music students and is open to any university students who desire to take it.

## CLASSIFICATION OF SUBJECTS

#### PRESCRIBED

			4 hours
Music	2	 	4 hours
Music	3	 	6 hours
Music	4	 	6 hours
Music	5	 	5 hours

<sup>\*</sup>For definition of semester hour see p. 134.

	Music	Piano	Voice	Violin	'Cello	
	First year					12 hours
	Second year					
	Third year					
	Fourth year	10	15	20	20	18 hours
	French or German					16 hours
	Physics 2					.2 hours
]	English 1					4 hours
	English 16					.3 hours
	Rhetoric 1					.6 hours
	Rhetoric 3					
	Military 1, 2					.3 hours
	Physical Training-					
	Men, 1, 3					.2 hours
	Women, 7, 9					.3 hours

The remaining hours of credit may be obtained in electives offered in the College of Literature and Arts, the choice of subjects being left to the individual students.

#### MUSICAL ORGANIZATIONS

The University Glee Club is an organization for men. Membership is decided by competition and is limited to sixteen in number. The club meets twice a week for rehearsal.

The Mandolin and Guitar Club is open to men. Membership is decided by competition, and the club is associated with the Glee Club in its concerts.

The Military Band is conducted by the instructor in band instruments. Besides giving several concerts during the year, it furnishes music for regimental formations and ceremonies and other occasions as required by the President. Membership is limited in number and is decided by competitive examination.

The University Choral and Orchestral Society is conducted by the Director of the School of Music, and gives each year a Christmas concert and a May Festival. The Orchestra meets for two hours' rehearsal once a week; it is open to all students who play any orchestral instrument ordinarily well. The Choral meets once a week for rehearsal of choral works. A small fee is charged for membership; singers not connected with the University are admitted.

# THE SCHOOL OF EDUCATION

#### FACULTY

The faculty of the School includes all those instructors who offer courses primarily intended for prospective teachers.

#### PURPOSE

It is the purpose of the School of Education to bring together all the resources of the University which contribute in a professional way to the preparation of three classes of workers in the public school system:

- 1. The High School Principal and the High School Teacher.— The school provides for the needs of the high school principal, by supplying a general knowledge of the various subjects of the high school curriculum, as well as a knowledge of organization and administration as applied to the secondary school; and for those of the departmental specialist by supplying a more extended knowledge of a few subjects.
- 2. The Supervisor of Special Subjects.—Manual training, domestic science, music, drawing, and physical training, as now taught in the better class of school systems, are subjects which demand specially trained supervisors; the facilities of the University for instruction in these subjects are thoroughly utilized.
- 3. The School Superintendent.—Demanding, as he does, a knowledge of the development of school systems, a keen insight into pedagogical problems, and an appreciation of child-nature, the superintendent needs extended preparation; this the School of Education is prepared to give.

#### COURSE

The course of study of the School of Education is made up of offerings selected from the work of the various departments of instruction in the University. The course is elective except for the graduation requirements of the college in which the student is registered.

The work is arranged in four somewhat distinct groups:

- (a) Courses in education, psychology, and philosophy bearing directly upon the profession of the teacher.
- (b) Courses especially intended for teachers, offered by various departments of the University.
- (c) Suggested programs for students preparing to become special teachers and supervisors of agriculture, domestic science, drawing, music, or physical training.
- (d) Suggested programs for continuous and progressive work in subjects represented in the high school curriculum.

#### SUGGESTED ELECTIVES

All students who are preparing to teach are advised to elect, besides those special subjects in which they desire to become proficient, the following professional courses:

- Education 1, five hours (Principles of Education); Education 10, two hours (Observation and the Technique of Teaching); Education 11, five hours (Practice Teaching).
- Psychology 1, three hours (Elementary Psychology); Psychology 5, two hours (Child Study).
- 3. An elementary course of at least three hours in philosophy.

The courses in psychology and philosophy should as far as possible be elected in the sophomore year of the student's course.

#### SPECIAL LECTURES

A number of special lectures are offered each year by the School of Education. The State Superintendent of Public Instruction and the presidents of the five state normal schools of Illinois are officially connected with the School in the capacity of special lecturers. Other educators of prominence are also invited from time to time to do similar service.

#### PRACTICE TEACHING

The School of Education is able to offer opportunities for practical training in secondary teaching. The Academy of the University enrolls over three hundred pupils of secondary grade, and is available to all students in education for purposes of observation. The study of actual class-room practice is an integral part of the courses in high school administration and the technique of teaching. Students who are properly qualified are admitted to the training courses which involve practice teaching in the Academy. Such students are given responsibility for the conduct and progress of their classes, and do the actual work of the class-room under the close supervision of the

faculty of the School of Education and the teachers of the Academy. A unit of work covering a period of eighteen weeks is allotted to each practice teacher. With the help of his advisers, he outlines the work for the entire period, provides for and prepares the necessary materials, and works out each daily lesson well in advance of the time for presentation. His class-work is watched, and criticisms and suggestions are offered as they are needed. All students in training meet once each week with the principal and other teachers of the Academy to discuss the progress of the work. In fact, for the time being, the student is, to all intents and purposes, a member of the teaching corps of the school, with a definite responsibility for the progress of the pupils that are assigned to his care. Training courses are effective only in so far as they concentrate, within a comparatively brief period, the discipline that the untrained teacher gains during a much longer period of actual experience. This recognized value of practice teaching can be realized only when the student in training feels the same responsibility for results that a teacher regularly employed would feel, and when supervision is so constant and so well systematized that mistakes can be corrected before they have had time to crystallize into habits.

In addition to the facilities afforded by the Academy, the public schools of Champaign and Urbana (both secondary and elementary) are available for purposes of observation. Opportunity is thus provided for the concrete study and investigation of the problems involved in the general supervision and administration of schools.

#### THE PEDAGOGICAL LIBRARY AND MUSEUM

In the rooms of the Department of Education in University Hall is a collection of national, state, and city reports, courses of study, and other educational documents of value. A card catalog of 9,000 titles, carefully classified, covering recent educational magazine literature, is also provided in the rooms of the Department. The Library is on the mailing list of most of the city school systems of the country, and annually receives their reports and courses of study.

# COMMITTEE ON APPOINTMENT OF TEACHERS

The committee has in charge the naming of candidates from among University graduates for positions as teachers or supervisors of public schools, or instructors in normal schools, colleges, and technical schools.

The Director of the School of Education is chairman of this committee, and the official nominations of students and graduates of the University to public school positions are made through his office.

# THE SCHOOL OF RAILWAY ENGINEERING AND ADMINISTRATION

#### FACULTY

EDMUND JANES JAMES, PH.D., LL.D., PRESIDENT
WILLIAM FREEMAN MYRICK GOSS, M.S., D.ENG., Director
DAVID KINLEY, Ph.D., Professor, in charge of Business Courses
ERNEST RITSON DEWSNUP, A.M., Professor, Railway Administration
EDWARD CHARLES SCHMIDT, M.E., Professor, Railway Engineering
JOHN CHRISTIE DUNCAN, M.S., PH.D., Assistant Professor, Accountancy

Franklin Wales Marquis, M.E., Associate, Railway Engineering Department, Engineering Experiment Station

Albert St. John Williamson, M.E., Instructor, Railway Mechanical Engineering

HARRY COLE KENDALL, B.S., Instructor, Railway Electrical Engineering

Francis Seeley Foote, Jr., E.M., Instructor, Railway  $\acute{C}ivil$  Engineering

#### GENERAL STATEMENT

The School of Railway Engineering and Administration has been established to prepare men broadly for the technical and administrative departments of railroads. The work offered is arranged in five different courses, any one of which is designed to occupy four years' time. The courses are:

Railway Civil Engineering Railway Mechanical Engineering Railway Electrical Engineering Railway Transportation Railway Traffic and Accounting The first three of these courses are administered by the College of Engineering, and a description of them appears with that of other courses offered by this College. Students are admitted to them under the same conditions as to other courses of the College of Engineering, and they have available for their use all of the library, drafting-room, and laboratory facilities which constitute the equipment of this College. The last two courses are administered by the College of Literature and Arts; they are described in detail in connection with the other courses of this College. Students are admitted to them under the same conditions as to other courses of the College of Literature and Arts, and they enjoy all the privileges of students in this College.

It is the purpose of each of these courses to add to the broad foundation of discipline and training which should be supplied by every college course, such specialized training as will be most useful to those who look forward to careers in railway service.

# MILITARY SCIENCE

BENJAMIN CLARKE MORSE, MAJOR 27TH U. S. INFANTRY, COMMANDANT

The military instruction is under the charge of an officer of the United States Army. The course as a whole has special reference to the duties of officers of the line. A full supply of arms and ammunition is furnished by the War Department, including 1,200 U. S. magazine rifles (model 1898) and accountements, two field pieces of artillery, and full equipment for a signal corps and a hospital corps.

Every male student, under twenty-five years of age, able to perform military duty, and not excused for sufficient cause, is required to drill twice each week until he has gained credit for four semester hours. He is also required to study drill regulations for infantry, and to recite upon the text once a week until he gains credit for one semester hour.

On petition, properly approved, special students may postpone their military science for not more than two semesters.

The practical instruction begins as soon as possible after a student enters the University. The standings in study and drill are placed on record with other class credits; one semester of recitations and drill counts two hours, and the three remaining semesters of drill three hours. This work is required for graduation in all the undergraduate colleges of the University.

The regiment, three battalions of five companies each, is composed mainly of the members of the freshman and sophomore classes. The non-commissioned officers are usually selected from the sophomore class, the lieutenants from the junior class, and the field officers and captains from the senior class and graduate school. There are 1,450 cadets and sixty commissioned officers in the regiment.

Artillery and signal detachments are organized mainly from those of the second year or sophomore class who have made more than an average standing in the work of the previous year.

A special military scholarship, good for one year, is open to each student who attains the grade of a commissioned officer; its value is paid to the holder at the close of the year. Appointments in the regiment are made on nomination by the commandant of cadets and confirmation by the Council.

Towards the close of the year a committee appointed by the Council examines candidates for nomination to the Governer of the State to receive commissions as brevet captains in the State militia. Candidates must be members of the senior class in full standing at the time of this examination; must have completed the course of military studies; must have served four semesters as commissioned officers; and must be approved by the Council as having good reputations as scholars, officers, and gentlemen.

The uniform is of eadet gray, the coat trimmed with black mohair braid, the trousers with black cloth stripe, cut after the U. S. Army pattern. In order that all uniforms worn at the University may be, in quality, make, and finish, in strict accordance with the specifications adopted by the Board of Trustees, all students enrolled in the military department are required to obtain them from that firm only that may, for the time being, be under agreement and bond with the Trustees to furnish said uniforms at a stated price and of standard quality.

The University Military Band is composed of students, and every full term of service therein is counted as one term of drill. See page 222.

# PHYSICAL TRAINING

#### FOR MEN

# GEORGE A. HUFF, DIRECTOR

The object of the work of this department is to preserve and improve the bodily health of the students by rational exercises and to teach proper intercollegiate sports. Regular classes are formed in swimming and feneing and for drill on the various gymnasium appliances. Lectures are given on personal hygiene.

All competitive athletic games are under the direct supervision of the Director of Physical Training, and an examination is required to show that membership on any team will not cause injury, but will tend to improve the physical condition. No student whose class work is unsatisfactory is allowed to play on a University team.

For a description of the Gymnasium, see p. 68.

#### FOR WOMEN

GERTRUDE EVELYN MOULTON, A.B., ACTING DIRECTOR

The object of the work of this department is to preserve and improve the general health, carriage, and co-ordination of the young women of the University. Each student is given a physical examination; suitable exercise is prescribed and advice given.

The class work embraces corrective, hygiene, and recreative exercise, including free and light gymnastics, marching, fancy steps, games, May-pole, etc. Tennis, hockey, basket-ball, and volley-ball are played in season.

The gymnasium is open at certain hours and under suitable restrictions to all women of the University. The uniform consists of navy blue regulation gymnasium suit and gymnasium shoes.

The swimming-pool is open daily, except Saturday, from 10 to 12 a.m. and from 2 to 5 p.m. The regulation swimming suit of one piece must be made of either denim or mohair.

For a description of the gymnasium, see under Woman's Building, p. 68.

# THE SUMMER SESSION

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT WILLIAM CHANDLER BAGLEY, Ph.D., DIRECTOR.

# CORPS OF INSTRUCTION, 1910

LEWIS FLINT ANDERSON, Ph.D., Assistant Professor of Education
WILLIAM CHANDLER BAGLEY, Ph.D., Professor of Education
CLARENCE WILLIAM BALKE, Ph.D., Associate in Chemistry
DANIEL OTIS BARTO, B.S., Instructor in Secondary School Agriculture
ELIZABETH MINERVA BROADDUS, Assistant in Physical Training
VERNA BROOKS, A.B., Assistant in Physical Training
HOWARD VERNON CANTER, Ph.D., Associate in the Classics
DAVID HOBART CARNAHAN, Ph.D., Associate Professor of the Ro-

QUITMAR SHIELDS CASPAR, Instructor in Mechanical Engineering
FRED LEMAR CHARLES, M.S., Assistant Professor of Agricultural

Education

James Alvin Chiles, Ph.D., Instructor in German

Thomas Arkle Clark, B.L., Dean of Men and Professor of Rhetoric

VIDA LUCILE COLLINS, A.M., Assistant in English

mance Languages

STEPHEN SHELDON COLVIN, Ph.D., Professor of Psychology

JOHN LEONARD CONGER, Ph.D., Professor of History, Knox College

FRED DUANE CRAWSHAW, M.E., Assistant Dean, College of Engineering; Director of Summer Courses in Manual Training

NINA BELLE CRIGLER, B.S., Assistant in Household Science

Sumner Webster Cushing, A.M., Professor in Physiography, State Normal School, Salem, Mass.

WILLIAM WELLS DENTON, A.M., Assistant in Mathematics CLARENCE GEORGE DERICK, Ph.D., Assistant in Chemistry DANIEL KILHAM DODGE, Ph.D., Professor of English

JAMES EVERETT EGAN, A.M., Assistant in Chemistry

FREDERICK Ellis, Instructor in Wood Shop

CLYDE WILBUR EMMONS, A.M., Assistant in Mathematics

Melvin Lorenius Enger, B.S., Associate in Theoretical and Applied Mechanics and Municipal and Sanitary Engineering

ROY VICTOR ENGSTROM, B.S., Assistant Professor of Theoretical and Applied Mechanics

Virgil R Fleming, B.S., Instructor in Theoretical and Applied Mechanics

Justus Watson Folsom, D.Sc., Assistant Professor of Entomology Stephen Alfred Forbes, Ph.D., LL.D., Director of the State Laboratory of Natural History

GUY STANTON FORD, Ph.D., Professor of Modern European History

James Herbert Gill, M.E., Assistant Professor of Machine Construction; in charge of Mechanical Department Shops

HENRY ALLAN GLEASON, Ph.D., Associate in Botany

W. O. GORDON, Instructor in Chemistry

Loma William Goben, Instructor in Metal Shops

ERNEST MILTON HALLIDAY, A.B., LL.B., Associate in English

CHARLES ARTHUR HART, Systematic Entomologist, Illinois State Laboratory of Natural History

LORA ATKINS HENION, A.B., Assistant in English

Horace Adelbert Hollister, A.M., Assistant Professor and High School Visitor

WILLIS B. HOLMES, Ph.D., Associate in Chemistry

CHARLES FREDERICK HOTTES, Ph.D., Assistant Professor of Botany

Joseph Gladden Hutton, B.S., Assistant in Geology

Helen Isham, Ph.D., Instructor in Chemistry

EMMA G. JAECK, A.M., Assistant in German

FLORENCE NIGHTINGALE JONES, Ph.D., Instructor in the Romance Languages

HARRY McCormick Kelly, A.M., Professor of Biology, Cornell College

Jakob Kunz, Ph.D., Assistant Professor of Physics

Edward John Lake, B.S., Assistant Professor of Art and Design

EDGAR THOMAS LANHAM, Instructor in Forge Shop

LAURENCE MARCELLUS LARSON, Ph.D., Assistant Professor of History

GEORGE ROGER LA RUE, B.S., A.M., Research Assistant in Zoology

ERNEST BARNES LYTLE, Ph.D., Instructor in Mathematics

RUTH MARSHALL, Ph.D., Professor of Biology, Rockford College

GEORGE ABRAM MILLER, Ph.D., Professor of Mathematics

DAVIS WALTER MORTON, A.M., B.D., Instructor in Economics

LLOYD FRANCIS NICKELL, A.B., Assistant in Chemistry

GEORGE BYRON NORRIS, Assistant in Physical Training for Men

CHARLES MARSHALL POOR, Ph.D., Instructor in German

Francis Marion Porter, B.S., Instructor in General Engineering Drawing

JOHN LOSSEN PRICER, A.M., Assistant in Botany

WILLIAM FREDERICK SCHULZ, E.E., Ph.D., Assistant Professor of Physics

Frank Smith, A.M., Curator of Museum and Associate Professor of Zoology

MAURICE COLE TANQUARY, A.M., Assistant in Entomology

ARTHUR JERROLD TIETJE, A.M., Assistant in English

GUSTAF ERIC WAHLIN, Ph.D., Instructor in Mathematics

HENRY BALDWIN WARD, Ph.D., Professor of Zoology; Vice-Director of Biological Station

NATHAN AUSTIN WESTON, Ph.D., Assistant Professor of Economics' ARTHUR RAY WARNOCK, A.B., Instructor in English

Josef Wiehr, Ph.D., Instructor in German

Mary Edith Williams, A.M., Instructor in Physical Training for Women

# GENERAL STATEMENT

The Summer Session of the University of Illinois extends over a term of nine weeks. This is equivalent to one-fourth of the regular University year, and credit is given on that basis. Examinations for those desiring credit for the work are held on the last two days of the session. Examinations in some of the courses may be taken at the end of six weeks by those who find it impossible to remain during the whole session.

In 1910 the Summer Session opened June 20 and closed August 19.

#### PURPOSE

The primary purpose of the Summer Session is to meet the needs of teachers in the elementary, secondary, and higher schools who wish to spend part of the summer vacation in serious study or investigation. The greater number of courses offered appeal particularly to high school teachers, to supervising officers, to teachers of special subjects (art, manual training, domestic science, agriculture, etc.), and to college instructors, school superintendents, and principals who are working for advanced degrees. At the same time, students who may not fall within these groups are welcomed at the session, and a number of courses of a more general nature are provided to meet their needs.

Attention is called to the fact that the nine-weeks' courses offer work equivalent to a half-semester of the regular University course. Consequently the work of four summers will equal the work of one academic year.

## PREPARATION FOR STATE TEACHERS' CERTIFICATES

To teachers who desire to make thorough preparation for the state-certificate examinations, the University Summer Session offers marked advantages, especially with regard to preparation in professional subjects.

The following Summer Session courses are especially adapted to prepare for the professional examinations:

Education S 1, Principles and Methods of Teaching.

Education S 2, Education Values and Methods; this course will be valuable for those preparing theses under Plan II.

Education S 3 or S 4, School Organization and Administration, and High School Administration; either course will be valuable for those preparing theses for the State supervisory certificate.

Education S 6, History of Education; the applicant for the State supervisory certificate must take an examination in the history of education.

Education S 8, Educational Psychology; this course, in connection with Education S 1, should prepare one for the examination in educational psychology.

#### SUMMER COURSES AT THE BIOLOGICAL STATION

The State Laboratory of Natural History has long maintained a biological station devoted to the continuous investigation of the

life of the Illinois River. In 1910 the Summer Session of the University of Illinois offered at this station elementary and advanced courses in botany, zoology, and physiography.

The biological station is located on the shores of Quiver Lake, a long, narrow bay of the river, just above Havana, well known to fishermen and campers. The grounds of the Epworth League Chautauqua, situated on a high bluff overlooking the lake, in a natural grove of forest trees, were turned over to the University for this summer work.

The Biological Station was, as heretofore, under the directorship of Professor S. A. Forbes. Dr. H. B. Ward, Professor of Zoology, was associated with Professor Forbes as Vice-Director, in charge of the Summer Courses.

## GRADUATE COURSES IN THE SUMMER SESSION

Graduate students who expect to do work toward a master's degree during the Summer Session should register with the Dean of the Graduate School.

In connection with the announcement of courses for the several departments, each course for which graduate credit is granted is indicated by an asterisk (\*). Graduate students will understand that only courses so marked will count toward the master's degree. The hours' credit indicated for such courses, however, has reference only to undergraduate students. Graduate students are not granted credit in terms of semester hours.

## FEES

A tuition fee of twelve dollars (\$12) is required of all students in regular attendance at the Session. This entitles one to admission to regular courses and to all special lectures. An extra laboratory fee is charged in some courses for material used. Any single course may be taken for a fee of six dollars (and the laboratory fee, if there is any for the course). A single course is understood to mean not more than two and one-half credit hours.

#### SCHOLARSHIPS

In accordance with an action of the Board of Trustees of the University, all high school teachers in Illinois, and all other teachers in the State who are able to matriculate in the University, are entitled to a free scholarship in the Summer Session of the University.

(For the requirements for matriculation see under Admission, p. 83 ff.) Teachers desiring these scholarships should present to the Director before June 1 a statement from the board of education of the school in which they have been employed, to the effect that they have been teaching during the past year. Blanks for this purpose may be obtained by addressing the Director.

## INCIDENTAL EXERCISES

Besides the regular exercises the Summer Session provides a number of incidental exercises, which in themselves are of no little value and which give to the Summer Session an atmosphere differing but little from that of the other sessions of the year. Prominent among these incidental exercises are the receptions given to the students; summer athletics; amateur dramatics; and the incidental lectures given by members of the University faculty and by men from other institutions. During the session of 1910 two such lectures were given each week.

# OUTLINE OF COURSES

## EXPLANATION OF ABBREVIATIONS

"S," which is prefixed to each of the courses offered, means "summer," and is used to distinguish such courses from those of the same number offered during the regular college year.

The number in parenthesis after each course indicates the number of hours of credit given.

Unless otherwise stated each course extends through the nine weeks of the session.

The word "daily" in the announcements of courses indicates that the class meets five times each week.

#### ACCOUNTANCY

# (See also Economics.)

S 1. PRINCIPLES OF ACCOUNTING.—A rapid review of the principles of bookkeeping; accounting for various types of business; changing from single to double entry for partnerships and corporations; journal entries; opening and closing entries; balance sheets; profit and loss accounts; surplus; reserve; depreciation. Five times a week; (2).

Mr. MORTON

#### AGRICULTURE

S 1. SECONDARY SCHOOL AGRICULTURE.—For science teachers in high schools. Plumb's The Feeding of Animals; Brigham's Progressive Poultry Culture; King's The Soil.

The University offers exceptional advantages to teachers who wish to do this work in the Summer Session, since the experiment plots, farm crops, farm machinery, farm methods, farm buildings, orchards, gardens, silos, dairy, herds, flocks, greenhouses, laboratories, and library,—the whole equipment of the College of Agriculture,—is at the service of the students of agriculture for instructional use. Daily; two periods; first six weeks; (1½).

Mr. Barto

S 2. COMMON SCHOOL AGRICULTURE.—Text: Elements of Agriculture.

The preparation of simple exercises in the study of soils and seeds and in problems dealing with germination and plant growth.

The work in this course will be related closely to the work in agriculture in the State Course of Study for the Common Schools of Illinois. For teachers in the grammar grades and in country schools. Daily; two periods; first six weeks; (1½).

Mr. BARTO

## ART AND DESIGN

- S 1. ELEMENTARY.—Form drawing from still life, cast, and nature; principles of outline and shading in pencil, charcoal, and erayon. Lectures on the principles of perspective. Two periods; daily; (2).

  Assistant Professor Lake
- S 2. Art for the Common Schools.—The planning and execution of work in the several divisions of common school art study; design; black-board drawing. Lectures upon organization, equipment, and the administrative side of the supervisor's work. For supervisors of drawing, and public school teachers. Daily; two periods; (2)

  Assistant Professor Lake

# BIOLOGY

(At Urbana)

(See also BOTANY and ZOOLOGY.)

S 1. Field and laboratory processes and methods; the elementary facts and principles of botany and zoology. Laboratory fee, \$1.50. For those preparing to teach the biological sciences in high schools. Daily; two periods; (2½).

Mr. PRICER, Mr. TANQUARY

# BOTANY

# (At Havana)

(See also BIOLOGY.)

S 3. PLANT PHYSIOLOGY.—The more important physiological processes of plants. Laboratory fee, \$1.00. Ganong's Plant Physiology, 2d ed. Three half-day periods; first six weeks; (2).

Assistant Professor Hottes, Mr. Lehenbauer

Prerequisite: High school work or its equivalent sufficient for

University entrance credit.

S 4. ADVANCED PLANT PHYSIOLOGY.—Special problems in the physiology of fungi and of aquatic plants. Lectures; laboratory; assigned reading. Laboratory fee, \$1.00. Three to six half-day

periods; first six weeks; (2-4). Assistant Professor Hottes
Prerequisite: A college course in general elementary plant physi-

ology or its equivalent.

S 5. CYTOLOGY.—Laboratory problems in experimental cytology; meetings for critical discussion of current literature and for reports on progress of the problems assigned. Laboratory fee, \$1.50. Three to six half-day periods; first six weeks; (2-4).

Assistant Professor Hottes

Prerequisite: At least one semester's work in botany or zoology, with microscopical technique.

S 6. SYSTEMATIC BOTANY.—The classification of plants and identification of species collected in the vicinity, with special attention to aquatic forms. Lectures; laboratory. Gray's New Manual, 7th ed. Three half-day periods; first six weeks; (2).

Dr. GLEASON

Prerequisite: High school work or its equivalent sufficient for

University entrance credit.

S 8. TAXONOMY AND ECOLOGY.—Selected systematic groups, or plant associations. Three to six half-day periods; first six weeks; (2-4).

Dr. GLEASON

Prerequisite: Course S 6, or its equivalent.

\*S 101. CYTOLOGY.—The influence of external agents on the cell; special subjects for investigation; reports and discussions of current literature and research results. Laboratory fee, \$2.00. First six weeks.

Assistant Professor Hottes

\*S 102. Physiology.—The effects of external stimuli on growth and movement; special subjects for investigation; reports and discussions of current literature and research results. Laboratory fee, \$1.50. First six weeks.

Assistant Professor Hottes

\*S 107. Ecology and Phytogeography.—Investigations upon plant associations and phytogeography; relations of selected areas; field work. Reports and discussions. First six weeks.

Dr. Gleason

## CHEMISTRY

Note:—By arrangement with the instructor, students who do not wish to attend the recitations or do the laboratory work, may attend the lectures of S 1 or S 2, but University credit will not be given in such cases.

GRADUATE WORK.—Graduate students whose major subject is not chemistry or agriculture may take for their graduate work S 5a or S 13a. Students whose major subject is chemistry may take S 111.

- S 1. ELEMENTARY CHEMISTRY.—General inorganic chemistry; the non-metallic elements. Illustrated lectures; recitations; laboratory. Alexander Smith's General Chemisty for Colleges. Daily, including Saturday; three periods; (5).
  - Dr. Balke, Dr. Isham, Mr. Egan, Mr. Nickell, Mr. Gordon
- S 2. DESCRIPTIVE INORGANIC CHEMISTRY.—The metallic elements, their compounds, and properties. Illustrated lectures; recitations; no laboratory. Alexander Smith's General Chemistry for Colleges. Daily, including Saturday; (2)

  Dr. Balke, Dr. Isham, Mr. Gordon Prerequisite: Chemistry 1.
- S 3. QUALITATIVE ANALYSIS.—Lectures; recitations; laboratory. Daily; three periods; (3).

Dr. Balke, Dr. Isham, Mr. Egan, Mr. Nickell Prerequisite: Chemistry 1.

\*S 5a. Elementary Quantitative Analysis.—Gravimetric and volumetric methods; stoichiometrical relations; the fundamental laws of chemistry applied to the study of solutions. Laboratory; lectures; recitations. Lincoln and Walton's Exercises in Quantitative Analysis. Daily; four periods; (5).

Dr. Holmes

Prerequisite: Chemistry 1 and 3.

S 9 and 9c. Organic Chemistry.—The more typical and simple organic compounds; the important classes of derivatives of carbon; preparation of typical organic compounds. Lectures; recitations; laboratory. Remsen's Organic Chemistry. Daily; four periods; (5).

Mr. Derick

Prerequisite: Chemistry 2 and 3.

S 11 and \*S 111. RESEARCH.—Inorganic or analytical chemistry.

Arrange. (2-5.) Dr. Balke, Dr. Isham, Dr. Holmes
(Subject to approval of Graduate School Faculty.)

- \*S 13a. AGRICULTURAL ANALYSIS.—The gravimetric determination and separation of the more important constituents of soils, fertilizers, and agricultural products; the chemical analysis of food stuffs, such as grains, fodders, and dairy products. Lincoln and Walton's Elementary Exercises in Quantitative Analysis. Daily; four periods; (5).

  Dr. Holmes
- S 17. Teachers' Course.—The methods of teaching elementary chemistry. Two periods a week; (1).

  Dr. Balke
- S 21. PROXIMATE ORGANIC ANALYSIS.—Systematic methods for the identification of organic compounds and a study of organic mixtures. Laboratory; for advanced students. Three periods; four days; (2).

  Mr. Derick

Prerequisite: Chemistry 9b or 9c.

## DRAWING, GENERAL ENGINEERING

S 1. Elements of Drafting.—Practice in lettering, orthographic projection, isometric and oblique drawing, machine sketching, and working drawings. Free-hand styles and titles for working drawings. Work from copy and from model. Dimensioned sketches and complete working drawings from parts of standard machines. Inking, tracing, and duplicating in blueprint form. Time sketches of the equipment in the shops and laboratories. Miller and Steward's Notes on Mechanical Drawing; Miller's Copy Plates; (4).

Mr. Porter

S 2. Descriptive Geometry.—Problems relating to the point, line, and plane, to the properties of surfaces, and to intersections and developments. Practice in the application of fundamental principles by the solution of practical problems. Recitations. Miller's Descriptive Geometry; (4).

Mr. Poirte

Prerequisite: General Engineering Drawing 1.

#### ECONOMICS

# (See also ACCOUNTANCY.)

S 1. Principles of Economics.—The forces determining economic development, with special reference to the experience of the United States. Seager's *Economics* (Briefer Course). (This course will be accepted as the equivalent of Economics 2.) *Five times a week;* 2.

Assistant Professor Weston

Prerequisite: Two years of University credit.

S 3. Banking.—The theory and history of banking; present currency and banking problems in the United States. Dunbar's

Chapters on the Theory and History of Banking. Four times a week;
(2). Assistant Professor Weston

Prerequisite: Economics S 1, or an equivalent course in the principles of economics.

S 18. Seminar.—Commercial education and commercial teaching; the practices of the United States and other countries. (For teachers of commercial subjects.) Weekly conferences.

Assistant Professor Weston, Mr. Morton

S 22. Economic History of the United States.—The general industrial development of the country; the growth of particular industries. Bogart's Economic History of the United States. (Not open to students with junior or senior standing. Four times a week; (2).

Mr. Morron

### EDUCATION AND PSYCHOLOGY

S 1. PRINCIPLES OF EDUCATION.—Biological principles which condition and limit education; heredity and environment; psychological principles governing the educative process, especially the laws of attention, habit, memory, and the formation of meanings; developmental principles which describe and explain the changes of childhood and youth; application of these principles to educational practice in connection with the course of study, methods or instruction and training, and school hygiene. Daily; first six weeks; (134).

Professor Bagley

\*S 2. EDUCATIONAL VALUES AND METHODS.—Contemporary methods of instruction and training described and analyzed to determine in what way and in how far they tend toward a realization of the various values inherent in different types of subject-matter; language, history, mathematics, and science considered with reference to elementary and secondary education. Lectures; discussions; prescribed readings in the recent literature of educational method. Four times a week; (2).

Prerequisite: Education S 1, or its equivalent.

\*S 3. School Organization and Administration.—The historical background of the American public school system; problems of organization and administration considered in their national, state, county, township, and district aspects, with comparative studies; financial support, supervision, teachers' qualifications, and community adjustments. Lectures; discussions; required readings. Dutton and Snedden's Administration of Public Education. Daily; (2½).

Assistant Professor Hollister

Prerequisite: Education S 1, or its equivalent.

S 4. High School Administration. — The organization and development of the American high school and of European secondary schools; the program of studies; the psychological principles involved in its organization; means of making it effective; problems growing out of the school as a social group. Recitations; lectures; discussions; the written development of a selected problem. Hollister's High School Administration. Daily; (2½).

Assistant Professor Hollister

- S 5. Class Management in the High School.—The special aims of the high school and the educational significance of adolescence; general principles of class management applied to the secondary problem; class routine; class hygiene; discipline; planning the lesson; the recitation; the assignment; papers, topics, outside reading, note-books; teaching pupils to study; testing results; text-books and apparatus; the relation of the teacher to the school and to the community; the teacher's growth. Lectures; discussions; assigned readings. Bagley's Classroom Management. Three times a week; (1½).

  Assistant Professor Anderson
- S 6. HISTORY OF EDUCATION.—The development of educational theory and practice in their relation to the history of civilization. Anderson's History of Common School Education. Daily; first six weeks; (1%).

  Assitant Professor Anderson
- \*S 7. HISTORY OF INDUSTRIAL AND VOCATIONAL EDUCATION.—
  Industry and industrial training in Egypt, Greece, Rome; industry
  and industrial training in the Middle Ages; the industrial revolution
  and its effect upon education; recent tendencies in the development
  of agricultural and industrial high schools, agricultural colleges,
  monotechnic schools, continuation schools. Daily; first six weeks;
  (1½3).

  Assistant Professor Anderson

Prerequisite: Education S 1 and S 6 or their equivalents.

- S 8. EDUCATIONAL PSYCHOLOGY.—The growth of consciousness in the child; the analysis of the mental processes involved in learning; the economy and technique of learning; the application of methods and results to the problems of the school room. Lectures; assigned reading; demonstration of methods. Daily; (2½). Professor COLVIN
- S 9. ROUND-TABLE FOR SCIENCE TEACHERS.—(Given at the Biological Station, Havana.) The problems and principles of secondary science-teaching with especial reference to high-school biology. Questions of equipment, materials, methods of instruction, texts, manuals, books of reference, plans for excursions, course of study, present trends in science teaching. The presentation and discussion of

particular topics by members of the Biological Station. Three times weekly; first six weeks; (1)

Assistant Professor CHARLES

S 10. ROUND-TABLE FOR NATURE STUDY TEACHERS.—(Given at the Biological Station, Havana.) Elementary-school phases of scientific instruction; the elements of agriculture, hygiene, physical science, and all other aspects of nature-study; the child's attitude toward nature; shifting centers of interest; scientific method; criteria for selection of materials; setting of problems; the teaching plan; course of study; relation to secondary science; nature-study literature. Illustrative field lessons. Three times weekly; first six weeks; (1).

Assistant Professor Charles

S 11. Personal Conferences.—(Given at the Biological Station, Havana.) Discussion of individual problems in science or nature-study teaching; education courses in biology or nature-study, involving individual investigation of problems in education; the adaptation of science courses to local conditions and community needs. For advanced students or experienced teachers. Daily; first six weeks. Hours and credit to be arranged.

Assistant Professor Charles

Prerequisite: Education S 9 and S 10, or their equivalents.

\*S 101. SEMINAR.—The problems of industrial education. (Open only to graduate students.) One two-hour meeting each week.

Professor Bagley
Special teachers' courses: See English S 15, English S 8, German
S 9, Household Science S 3, Latin S 2, Manual Training
S 2, Mathematics S 5, Physical Training for Women S 2,
Physics S 18, Economics S 18, Chemistry S 17, Art and
Design S 2, Physical Geography S 1, Agriculture S 1 and S 2.

### ENGLISH

### (See also RHETORIC.)

S 1a. INTRODUCTORY COURSE.—English Literature before the Nineteenth Century. This course, with S 1b, is equivalent to English 1 (see p. 349). Four periods a week; (2). Miss Henion Prerequisite: Three years at an approved high school.

S 1b. Introductory Course.—English Literature before the Nineteenth Century. This course, with S 1a, is equivalent to English 1 (see p. 349). Four periods a week; (2). Mr. Warnock

Prerequisite: Three years at an approved high school.

S 2a. INTRODUCTORY COURSE.—English Literature of the Nineteenth Century. This course, with S 2b, is equivalent to English 2 (see p. 349). Four periods a week; (2). Mr. WARNOCK

Prerequisite: The same as for S 1,

S 2b. Introductory Course.—English Literature of the Nineteenth Century. This course, with S 2a, is equivalent to English 2 (see p. 349). Four periods a week;  $(1\frac{1}{2})$ . Mr. Tietje Prerequisite: The same as for S 1.

S 15. COURSE FOR TEACHERS.—Some of the books in English Literature required for entrance to the University with reference to their use in the school room. Three periods a week; (1½).

Mr. TIETJE

Prerequisite: The consent of the instructor.

S 16. AMERICAN LITERATURE.—Four periods a week: (2).

Miss Henion Prerequisite: English 1 and 2, or an equivalent.

S 23. ELEMENTARY COURSE IN SHAKESPEARE.—Four periods a week; (2).

Mr. Tietje

Prerequisite: English 1 and 2, or an equivalent.

S 8. OLD ENGLISH (Anglo-Saxon).—Grammar, prose, and short poems. Daily; (2½). Professor Dodge

Prerequisite: Two years of college English, or one year of college English and one year of college German.

#### GRADUATE COURSES

\*S 105. The Pre-Shakespearean Drama.—Lyly, Peele, and Greene. Daily; (2½). Professor Dodge

Prerequisite: Three years of college English, including one course in Shakespeare, approved by the instructor.

\*S 101c. RESEARCH COURSE,—Special research work on some topic suggested by course S 105. Professor DODGE

Prerequisite: Registration in English S 105.

### ENTOMOLOGY

# (At Urbana)

S 1. General Field and Laboratory Course.—Field, laboratory, and insectary observations on important economic insects and on other forms particularly interesting to the teacher. A well-equipped insectary is available, and frequent field excursions are made under the leadership of the instructor. Folsom's Entomology with Reference to Its Biological and Economic Aspects. (Agricultural students may arrange to carry under this course the required economic entomology (Entomology 4) of the fall and spring semesters.) Daily; (2½).

Assistant Professor Folsom

- S 2. ADVANCED COURSE.—Field and insectary work on economic and ecological subjects. Daily; (2½). Assistant Professor Folsom Prerequisite: Entomology S 1 or its equivalent.
- S 3. APICULTURE. Bee-keeping: practical work; laboratory studies; collateral reading; semi-weekly discussions. Daily; (2½).

  Assistant Professor Folsom

### FRENCH

# (See ROMANCE LANGUAGES.)

#### GERMAN.

- S 1. Beginners' Course.—Pronunciation; grammar; composition; reading of easy texts. Vos's Essentials of German. Daily; including Saturday; (3). Two sections. Dr. Chiles, Miss Jaeck
- S 2. Intermediate Course.—Grammar; composition; reading. Vos's Essentials of German (revised ed.); Bernhardt's Im Zwielicht. Five times a week; (2½).

  Dr. Wiehr

Prerequisite: German 1, or an equivalent.

S 3. PROSE READING.—Narrative prose; sight translation; composition. Five times a week; (2½). Dr. Poor

Prerequisite: German 3, or an equivalent.

S 4. READINGS FROM THE CLASSICS.—Lessing's Minna von Barnhelm, Schiller's Jungfrau von Orleans. Five times a week; (2½).

Miss JAECK

Prerequisite: German 4, or an equivalent.

Students securing a grade of 85 or more and doing additional work assigned by the instructor, may supplement the work of S 1, S 2, S 3, S 4, making it the equivalent of the University courses 1, 3, 4, or 5 respectively, the amount to be indicated at registration.

S 5. PROSE COMPOSITION.—Translation of ordinary prose into German; study of idiomatic constructions; practice in rendering at sight. Pope's German Composition. Two times a week; (1).

Dr. CHILES

Prerequisite: Two years of University work in German, or an equivalent.

- S 7. READINGS FROM PROSE FICTION.—Rapid translation and sight reading of modern narrative prose. Five times a week; (2½). More credit by arrangement, to be indicated at registration.

  Dr. Poor
- \*S 8. GOTHIC OR MIDDLE-HIGH-GERMAN.—Paul's Mhd. Grammatik; Bachman's Mhd. Lesebuch. Three times a week; (1½).

Dr. WIEHR

Prerequisite: Four years of University work in German or an equivalent.

- S 9. TEACHERS' COURSE.—Place, aim, and scope of the study of German in the high school; discussion of methods and the chief difficulties in teaching German. Three times a week; (1½). Dr. CHILES
- S 10. HISTORY OF GERMAN LITERATURE.—Lectures; recitations; reports on assigned collateral reading. Robertson's *History of German Literature*. Three times a week; (2). Dr. WIEHR

### HISTORY

- S 1b. European History, 1300-1648.—Introductory, corresponding, for the period covered, to History 1 (see p. 368). (It is planned to cover the whole period of medieval and modern European history in three courses in succeeding summer sessions. The course given next year will probably cover the period from 1648 to the present time.) Six hours a week; (3).

  Assistant Professor Larson
- S 3c. AMERICAN HISTORY, 1850-1898.—A part of the usual introductory course in American history (see p. 369). (To be given in three sections in succeeding sessions. The course offered next year will probably cover the colonial period to 1783.) Six hours a week; (3).

  Professor CONGER

COURSES FOR GRADUATES AND ADVANCED UNDERGRADUATES

\*S 10. THE HISTORY OF ENGLAND IN THE NINETEENTH CENTURY.

-Four times a week; (2). Assistant Professor Larson

Prerequisite: At least two years of college work, including a general course in European or English history.

\*S 11. Studies in the Era of Jeffersonian Republicanism and the War of 1812, 1800-1816.—Some practice in the critical use of documents. Attention paid to the special needs of teachers. Four times a week; (2).

Professor Conger

Prerequisite: Approximately senior college standing; some college work in American history.

\*S 121. Selected Topics in the History of the Nineteenth Century.—The attitude of Bismarck toward certain social and economic questions of his age. Arrange hours. Professor Ford

Prerequisite: A reading knowledge of German; a general acquaintance with the history of Europe since 1815.

### HOUSEHOLD SCIENCE

S 1. Food.—Equipment of rural schools; planning of courses and lessons for the elementary school. Lectures; quizzes; laboratory with

demonstrations. Bevier and Van Meter's Selection and Preparation of Food. Six periods a week; first six weeks; (1). Miss CRIGLER Prerequisite: For credit, Chemistry 1.

- S 2. The House.—The plan, decoration, and care of the house. Price's Handbook on Sanitation. Three periods a week; first six weeks. (1).

  Miss Crigler
- S 3. Special Problems of the High School Teacher.—The teaching of food, clothing, and the home; value; relation to other subjects in the curriculum; methods of presentation; planning of courses; planning of lessons; the kind and cost of equipment. Proceedings of Lake Placid Conference, 1908. Three periods a week; first six weeks; (1).

#### LATIN

- S 1. Horace.—The Odes. Shorey's edition. Three times a seeek;  $(1\frac{1}{2})$ . Dr. Canter
- S 2. TEACHERS' COURSE. Bennett and Bristol's Teaching of Latin and Greek. Twice a week; (1).

  Dr. CANTER
- S 3. Tacitus.—Selections from the Annals. Three times a week;  $(1\frac{1}{2})$ .

  DR. Canter
  - S 4. LATIN WRITING. Text; D'Ooge. Twice a week; (1).

    DR. CANTER

### MANUAL TRAINING

### (See also Mechanical Engineering.)

- S 1. ORGANIZATION OF MANUAL TRAINING.—Development of manual training; manual training systems; manual training courses in the United States; the influence of industrial education; manual training aims, methods, and limitations; study of courses; planning equipments. Daily; (2½).

  Assistant Dean Crawshaw
- S 2. Methods of Teaching Wood-Working.—Constructive design; fundamental processes; methods of conducting classes; practice teaching; furniture-making, finishing, and decoration; planning courses in bench-work; courses in thin wood, wood-turning, and framing. Griffith's Essentials of Woodworking; Crawshaw's Problems in Furniture-Making. Three hours daily; (3).

Assistant Dean CRAWSHAW, Mr. ELLIS

### MATHEMATICS

S 2. ADVANCED ALGEBRA. — Progressions; binomial theorem; undetermined coefficients; partial fractions; permutations and com-

binations; imaginaries; logarithms; theory of equations. Rietz and Crathorne's College Algebra. (Equivalent to Mathematics 2, see p. 384.) Daily; (2½). Mr. Denton

- S 4. PLANE TRIGONOMETRY.—Text: Conant. (Equivalent to Mathematics 4, see p. 385.) Daily; (2½). Dr. LYTLE
- S 5. Teachers' Course.—Methods of teaching algebra and geometry; position of mathematics in the secondary school course; correlation of mathematics with allied subjects; the leading text books; a brief history of elementary mathematics. Daily;  $(2\frac{1}{2})$ .

Dr. LYTLE

- S 6. ANALYTICAL GEOMETRY.—Equations of the first and second degrees and their geometric interpretation; other loci; the analytical geometry of three dimensions. Text: Tanner and Allen. Daily; (2½).

  Mr. Emmons
- S 7. DIFFERENTIAL CALCULUS.—Text: Townsend and Goodenough. (Equivalent to Mathematics 7, see p. 385.) Daily; (21/2).

  Mr. DENTON
- S 9. INTEGRAL CALCULUS.—(Equivalent to Mathematics 9, see p. 385.) Daily; (21/2). Dr. WAHLIN and Mr. EMMONS
  - S 15. SEMINAR AND THESIS. (21/2). Professor MILLER
- S 16. DIFFERENTIAL EQUATIONS.—The integration of differential equations. Text: Cohen. Daily; (2½). Dr. Wahlin

Prerequisite: Differential and Integral Calculus.

- \*S 120. ELEMENTARY THEORY OF GROUPS.—The groups in arithmetic, geometry, and trigonometry; those represented on a small number of letters. Lectures. Three periods a week.
  - Professor Miller
- \*S 10. Theory of Equations and Determinants.—Böcher: Introduction to Higher Algebra. Daily;  $(2\frac{1}{2})$ .

Professor MILLER

### MECHANICAL ENGINEERING

(See also MANUAL TRAINING.)

These courses are equivalent to those offered in the same subjects during the University year.

S 1a. Pattern Shop.—The care and use of tools; the construction of patterns, core boxes, match boards. The shop is equipped with tools, benches, and machines such as are found in modern pattern shops. Five three-hour periods a week; (3).

Mr. Ellis

S 1b. Forge Shop.—Shaping and welding iron and steel; dressing and tempering lathe and other tools; annealing and case hardening. One two-hour and two three-hour periods a week: (11/2).

Mr. LANHAM

- S 1c. FOUNDRY.—Care and management of the cupola; floor, bench and machine molding; green and dry sand cores; mixing and casting brass, aluminum, and other soft metals. One two-hour and two three-hour periods a week; (1½).

  Mr. GAWNE
- S 2a. Machine Shop.—Chipping and filing; elementary work on lathe, drill press, shaper, planer, and grinding machine. Five three-hour periods a week; (2½).

  Mr. Scroggin, Mr. Goben
- S 2b. Advanced Machine Shop.—The use of milling machine, screw machine, gear cutter, boring mill and turret lathe; erecting and testing of machines and gas engines. Five-three-hour periods a week;  $(2\frac{1}{2})$ . Mr. Scroggin

Lectures on tools and shop processes are given frequently, and inspection trips to shops in the local and adjoining towns are made in connection with all classes in shop practice. A student may finish one full year's work in the shop during the summer term.

### MECHANICS, THEORETICAL AND APPLIED

S 7. ANALYTICAL MECHANICS.—The first half of Analytical Mechanics as given in Maurer's Technical Mechanics. Daily; (3).

Mr. Noerenberg

Prerequisite: Mathematics 7; registration in Mathematics 9.

S 8. ANALYTICAL MECHANICS.—The second half of Analytical Mechanics as given in Maurer's Technical Mechanics. Daily; (2½).

Mr. Murdock

Prerequisite: Mathematics 9; T. & A. M. 7.

S 9. RESISTANCE OF MATERIALS.—The elementary principles of the mechanics of materials, with experiments and investigations in the materials laboratory to verify the experimental laws; problems in ordinary engineering practice. This course covers the same ground as T. and A. M. 9. Merriman's Mechanics of Materials. Daily in class room and two double periods in laboratory; (3½).

Mr. Murdock, Mr. Habermeyer

Prerequisite: T. and A. M. 7; registration in T and A. M. 8.

S 10. Hydraulics.—The laws of the pressure and the flow of water; utilization as motive power; observation and measurement of pressure, velocity, and flow; power and efficiency; the determination

of experimental coefficients. Text-book; laboratory, Hoskin's Hydraulics. Four times a week and two double periods in laboratory. Mr. Habermeyer

With the opening of the hydraulic laboratory for the Summer School, arrangements may be made to use its facilities for special experimental work.

# MICROSCOPICAL TECHNIQUE

### (At Havana)

S 1. Approved methods for preserving and mounting plants and animals for microscopical study, either as whole objects or in sections; practice in killing, fixing, staining, and sectioning plant and animal tissues, and in making temporary and permanent mounts; collection of useful objects for study and subsequent work in teaching; methods which do not require elaborate apparatus. Abundant apparatus and supplies will be taken from the University for all students and special apparatus for such as register beforehand for more advanced work. (Laboratory fee, \$2.00.) Two half-days per week; (1). Mr. LA RUE

### PHILOSOPHY

S 1. Introduction to Philosophy.—Epistemology, cosmology and ontology in the light of their historical settings and their modern bearings. Paulsen's Introduction to Philosophy. Daily; (21/2).

Professor Colvin

### PHYSICAL GEOGRAPHY

# (At Havana)

- S 1. COURSE FOR TEACHERS .- The most common topographic forms in the Mississippi Valley and the processes which have brought them into existence, illustrated by forms in the vicinity of the station. (For teachers in secondary schools.) Davis and Snyder's Physical Geography, or Salisbury's Advanced Physiography, Two half-day periods in the field, and one in the laboratory; first six weeks; (2), Professor Cushing, Mr. Hutton
- S 2. THE PROCESSES OF PHYSICAL GEOGRAPHY .- The broad problems of the science; the philosophy of physiographic processes. Lectures: laboratory: field work. Text: As for course S 1. Three or six half days; first six weeks; (2-4). Professor Cushing

Prerequisite: An elementary course in Physical Geography.

### PHYSICAL TRAINING

### FOR MEN

- S 1. Gymnasium Practice.—Three hours' gymnasium drill each week. Mr. Hana
  - S 1a. PERSONAL HYGIENE.—Six lectures. Dean CLARK
- S 2. GYMNASIUM PRACTICE.—Three hours each week in advanced heavy apparatus work.

  Mr. Hana
- S 4. Swimming.—The large pool in the gymnasium offers ample facilities for swimming.

  Mr. Norris

### FOR WOMEN

- S 1. Practice and Theory.—Correcting common faults of carriage, posture, etc. Personal hygiene; clothing; bathing; sleep; diet; exercise, and other personal habits. Lectures; hygienic and corrective exercises. Daily; first six weeks. Miss Williams, Miss Broaddus
- S 2. Practice.—Elementary drills in free gymnastics, light apparatus, folk and gymnastic dancing; tennis, lawn-bowling, and other games. Daily; first six weeks. Miss WILLIAMS, Miss BROADDUS
- S 3. SWIMMING.—Instruction and practice during nine weeks.

  Daily. Miss WILLIAMS, Miss BROOKS

### PHYSICS

S 2a. GENERAL PHYSICS.—Mechanics and heat. Lectures with experimental illustrations and recitations. Ganot's *Physics. Three periods a week;* (1). Dr. WILLIAMS

Prerequisite: Plane geometry; high school algebra; plane trigonometry desired.

S 2b. GENERAL PHYSICS LABORATORY.—Mechanics and heat. Laboratory to accompany S 2a. Watson's Laboratory Manual. Three two-hour periods a week; (1½). Dr. WILLIAMS, Mr. HYSLOP

Prerequisite: Same as for S 2a.

S 4. ELECTRICAL AND MAGNETIC MEASUREMENTS.—Laboratory; discussions; recitations. Three three-hour periods a week; (1½).

Assistant Professor Schulz

25 I

Prerequisite: Physics 1, 3; or 2a, 2b; Mathematics 7, 9.

S 18. Teachers' Course.—Practical problems for the teacher in high school physics; typical laboratory experiments. Two two-hour periods each week; (1).

Assistant Professor Schulz

S 20a. Lectures and Recitations Based on Edser's Light.—Dispersion, interference, diffraction, and polarization phenomena. Of special interest to teachers who wish to gain experience in setting up and performing their own lecture experiments. Individual work may be arranged for graduate students. Three three-hour periods a week; (1½).

Assistant Professor Schulz

Prerequisite: A course (lectures and laboratory) in general

physics, such as Physics 1, 3; or 2a, 2b.

#### COURSES FOR GRADUATES

\*S 32. Theoretical Electricity.—Lectures introductory to advanced course. Three periods a week for first six weeks.

Assistant Professor Kunz

Prerequisite: See the instructor.

\*S 33. Introduction to Mechanics.—Lectures leading to advanced work. Four periods a week for first six weeks.

Assistant Professor Kunz

Prerequisite: See the instructor.

\*S 31. Investigation of Special Problems.—Laboratory or design and calculation. Once or twice a week.

Assistant Professor Schulz, Assistant Professor Kunz

\*S 133. Seminar and Thesis.—Once or twice a week.

Assistant Professor Schulz, Assistant Professor Kunz

### POLITICAL SCIENCE

- S 1. FEDERAL GOVERNMENT IN THE UNITED STATES.—Nature and organization of the federal system of government in the United States; federal constitution; nature of the union; powers and rights of the states; organization and procedure for both houses of Congress; the presidency; federal courts. For teachers of history and civics. Daily; first six weeks; (12/3). Professor Garner
- S 2. The Elements of International Law.—Nature and development of the law of nations; source and present status; the equality of states; doctrine of intervention; laws of war and of peace; rights and duties of neutrals; the arbitration movement, and the work of the two Hague conferences; the Monroe doctrine; position of the United States as a world power among the nations. Daily; first six weeks; (12/3).

  Professor Garner

### PSYCHOLOGY

(See Education and Psychology.)

### RHETORIC

### (See also English.)

S 1a. RHETORIC AND THEMES.—(Equivalent to the first semester of Rhetoric 1, see p. 353.) Daily; (3). Two sections.

Miss COLLINS and Miss HENION

Prerequisite: Three years at an approved high school,

S 1b. RHETORIC AND THEMES.—(Equivalent to the second semester of Rhetoric 1, see p. 353.) Daily; (3). Miss Collins Prerequisite: The same as for S 1a.

S 3. Dally Themes.—Five short themes a week with a four-page theme every fortnight. Three periods a week; (2).

Professor Clark and Mr. Warnock

Prerequisite: Rhetoric 1 or an equivalent.

- S 4. THE ART OF DEBATE.—Brief writing and extemporaneous presentation of arguments in formal debate. Foster's Argumentation and Debating. Two periods a week; (1). Mr. HALLIDAY
- S 5. EXTEMPORE SPEAKING.—Platform discussion of current events; practice in after-dinner speaking; impromptu debates. Phillips's Effective Speaking. Two periods a week; (1).

Mr. HALLIDAY

Prerequisite: Rhetoric 1 or an equivalent.

S 7. Public Speaking.—Vocal, breathing, action, and declamation exercises; text-book and individual instruction. Fulton and Trueblood's Public Speaking. Four periods a week; (2).

Mr. HALLIDAY

Prerequisite: Three years at an approved high school.

S 8. THEME CORRECTING.—The most helpful and suggestive methods of correcting themes. Lectures; discussions; written exercises. Two periods a week; first six weeks; (%3). Professor Clark Prerequisite: The consent of the instructor.

### THE ROMANCE LANGUAGES

### FRENCH

- S 1. BEGINNERS' COURSE.—Pronunciation; grammar; composition; reading of easier texts. Fraser and Squair's Elementary French Grammar; Bacon's Une Semaine a Paris; Siceard's Easy French History. Daily; (2½).
- S 2. READING OF MODERN FRENCH.—Rapid reading of modern authors; composition; conversation. Everyday French, Bronson;

Colomba, Mérimee; Pêcheur d' Islande, Loti; Huit Contes Choisis, Guy de Maupassant; La Mare au Diable, George Sand; Bataille de Dames, Scribe and Legouvé; Mademoiselle de la Seiglière, Sandeau. Daily; first six weeks; (2).

Associate Professor Carnahan

- S 3. SUPPLEMENTARY WORK.—Distinctly superior students may supplement the work of either of the preceding courses, so as to earn a full semester's credit of four hours.
  - For S 1, Dr. Jones. For S 2, Associate Professor Carnahan
- S 4. Advanced Composition and Conversation. Two periods a week. (1, or more by arrangement.) Dr. Jones

Prerequisite: Two years of University work in French, or an equivalent.

S 5. FRENCH DRAMA OF THE NINETEENTH CENTURY.—Rapid reading; lectures; reports on collateral reading. Ruy Blas or Hernani, Hugo; Cyrano de Bergerac or Les Romanesques, Rostand; Trois Comédies, Alfred de Musset; Le Pater, Coppée; Question d'Argent, Dumas fils. Three periods a week; first six weeks. (1½, or more by arrangement.)

Associate Professor Carnahan

Prerequisite: French 1, or an equivalent.

### SPANISH

- S 1. Beginners' Course.—Pronunciation; grammar; composition; reading of easy texts. Loiseaux's Spanish Grammar, and Spanish Reader. Daily; (2½). Dr. Jones
- S 3. Supplementary Work.—An opportunity is offered to do supplementary work in Spanish similar to that in French. Open only to distinctly superior students.

  Dr. Jones
  - \*S 125. Seminar.— Associate Professor Carnahan

### SOCIOLOGY

- S 1. SOCIAL CONDITIONS AND PROBLEMS IN THE UNITED STATES.— Immigration; the negro; poverty; crime; the great city; the rural community. Daily; first six weeks; (1%). Professor HAYES
- \*S 3. Comparative and Genetic Sociology.—Different modes of activity (economic, political, legal, ethical, religious, domestic) among people at different stages of progress, savage, barbarous, and civilized; inductions from such facts; a theory of social evolution, and of the method of progress. (Graduate credit for those who meet special requirements.) Daily; first six weeks; (124).

Professor HAYES

### SPANISH

(See ROMANCE LANGUAGES.)

### ZOOLOGY

(At Havana)

(See also Biology.)

- S 1. GENERAL ZOÖLGGY.—Vertebrate and invertebrate animals from the ecological, physiological, and morphological points of view; comparative study of animals living in their natural environment. Lectures; laboratory; field work. (Especially for teachers of zoölogy.) Laboratory fee, \$1.00. Daily; first six weeks; (2.5).
  - Professor Kelly, Dr. Marshall
- S 2. FAUNISTIC ZOÖLOGY, INCLUDING ENTOMOLOGY.—The collection, preservation, and identification of various kinds of aquatic animals, including insects. Laboratory fee, \$1.00. Three times a week; first six weeks (2).

  Professor SMITH, Mr. HART
  - Prerequisite: An elementary course in Zoölogy.
- S 3. FIELD ORNITHOLOGY.—The observation and indentification of birds. Methods of making skins and mounting specimens. Two or three half-days; first six weeks; (1-2).

  Professor Smith
- S 21. Introduction to Research.—The morphology, life history, or reciprocal relations of invertebrate forms. Laboratory; conferences; assigned reading. (For students who intend to pursue graduate work or independent investigations.) Laboratory fee, \$2.00.

  First six weeks; (2-5).

  Professor Ward
- \*S 117. FAUNISTIC ZOÖLOGY.—Problems in taxonomy, distribution and faunal groups. Students profit by the work, collections, library and apparatus of the natural history survey of the state, in progress at the Biological Station. Field work; conferences; lectures. Three to five times a week; first six weeks; (12/3). Professor SMITH
- \*S 121. Individual Research Courses.—Investigations on animals in their natural environment:
- (a) Morphology and Life History of Invertebrate Forms; problems in Animal Parasitology. Professor WARD
  - (b) Faunistic and Taxonomic Studies. Professor SMITH Laboratory fee, \$2.00.

# THE COLLEGE OF LAW

### FACULTY

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

OLIVER ALBERT HARKER, A.M., LL.D., Dean and Professor of Law Frederick Green, A.M., LL.B., Professor

EDWARD SAMPSON THURSTON, A.M., LL.B., Professor

JOHN NORTON POMEROY, A.M., LL.B., Assistant Professor

WILLIAM GREEN HALE, B.S., LL.B., Instructor and Secretary of the College

EDWARD HARRIS DECKER, LL.B., Instructor

### AIM OF THE COLLEGE

It is the aim of the College to furnish its students with such a training as will best fit them for the practice of the law. A mere knowledge of what the law is will not suffice. The student must learn the reasons which have made it what it is. These can be mastered only by studying the law in the light of its historical development. No special course is offered on the history of the law; but it is sought to present each subject so that the principles peculiar to it may be historically understood. It is also the aim of the College that the courses shall be so presented as to familiarize the student with legal methods of reasoning and to equip him with legal habits of thought. It is believed that the case method of instruction, properly understood and applied, is well adapted to accomplish these objects.

### ADMISSION

For the requirements in force for 1910-11, see the general statement of the entrance requirements of the University, p. 83.

### NEW ANNOUNCEMENT

With the exception of special students as defined below, applicants for admission to the College of Law, entering after July 1, 1911, must have obtained credits for one year's work in another college of this University or of some other institution of recognized standing; provided, however, that an applicant who lacks not more than four semester hours of such credit may be admitted on condition of making up the deficiency before beginning the second year of law study.

### ADVANCED STANDING

The following classes of persons are admitted to advanced standing:

- 1. Persons who produce from another law school, in good standing, certificates of having satisfactorily pursued courses in law, included in the following schedule, and of having received credit therein; provided that the time spent on such courses is equivalent to the time spent on the same courses in this College. Otherwise, an examination on such courses, given by the instructors in this College, must be satisfactorily passed.
- 2. Persons who have studied law privately, or in an attorney's office, and pass examinations prescribed by the faculty of the College.

### SPECIAL STUDENTS

Students twenty-one years of age, or over, who do not desire to be candidates for a degree, are permitted to carry such law courses as may be approved by the faculty of the College of Law, under regulations prescribed by the University. Such students receive credit for work satisfactorily done, and may become candidates for graduation at any time by meeting the requirements of the College.

### INSTRUCTION

Courses in substantive law are taught by analyzing and comparing cases which have been carefully selected and arranged in case books. References, however, are constantly made to leading text books, and they are recommended and in certain courses required for collateral reading.

The instruction gives a thorough training in the common law, which constitutes a proper foundation for the practice of law in any state of the Union.

Courses in the law of procedure are taught from the leading text books, supplemented by the examination of statutes and adjudged cases, and students are brought into as close touch as possible with actual practice both by the method of instruction in these courses and by means of the Moot Court.

The Law Faculty is impressed with the idea that a state university should teach the law of the state which supports the school, and to that end, while the study of the general principles that lie at the foundation of the common law is by no means neglected, especial attention is given in all courses to grounding the student thoroughly in the law as determined by the courts of Illinois. Throughout the entire course, the students are required to consult frequently Illinois decisions and statutes, which are made the basis of discussion in class by students and intructor. In the Moot Court and through the course in Illinois procedure, especial attention is paid to the rules of pleading and practice that obtain in the State of Illinois.

### MOOT COURT

The sessions of the Moot Court are held every Monday afternoon of the first semester for the third year class; every Wednesday afternoon of the first semester for the second year class; and every Monday afternoon of the second semester for the second and third year classes together. The Court is presided over by the Dean, who has had an experience of twenty-five years as a judge of the Circuit and Appellate Courts of Illinois. Attendance is compulsory with second and third year classes. It is the purpose to have the workings of the Moot Court parallel proceedings in the various courts of the State. Students are trained in the preparation of legal documents and in the trial of cases, both civil and criminal.

The Moot Court Bulletin is published every week of the college year, and in this are printed the statements of cases, the briefs of opposing counsel, and the opinions of the presiding judge.

### SPECIAL LECTURES

Addresses by prominent members of the bench and bar on practical features of the law are given from time to time during the year.

In 1909-10 two courses of such lectures were given, as follows: Probate Practice, by R. W. Olmstead, Judge of the County Court, Rock Island County, Illinois

Legal Ethics, William Nathan MacChesney, A.B., LL.B., of the Chicago Bar

### THE LAW LIBRARY

The Law Library contains 12,000 volumes, including all the reports of the courts of last resort of all the states; the United States Supreme, Circuit, and District Court reports; the English reports; the statutes of the various states; digests of the state reports; several sets of special reports, such as the American Reports, American State Reports, American Decisions, and Lawyers' Reports Annotated; all the great Encyclopedias and Digests; and a carefully selected collection of text books and legal periodicals.

The library is growing rapidly, new sets of reports and new digests, text books, and periodicals being continually added, together with the continuations of the reports and periodicals already in the library.

### REQUIREMENTS FOR GRADUATION AND DEGREES

### DEGREE OF BACHELOR OF LAWS

The degree of Bachelor of Laws will be granted to all regularly matriculated students who complete all the courses in the first year list; courses 8, 10, 11, 12, 18, 20, 26 (second year), and any two of courses 9, 14, 30, and 32; courses 4a, 15, 17, 19, 21, 22, 26 (third year); and enough of the other courses offered so that a total of 84 units of credit are presented, of which 28 are in third year subjects.

### DEGREE OF DOCTOR OF LAW

The degree of Doctor of Law will be granted to students who comply with the following conditions:

- 1. Complete the work required for the degree of Bachelor of Laws
- Secure a bachelor's degree in arts or science at least two academic years prior to the completion of the course for the degree of Doctor of Law.
  - 3. Obtain a minimum average grade of 85 in the College of Law.
- 4. Present a thesis approved by the faculty of the College of Law, in accordance with the requirement hereinafter set out.

Students who receive the A.B. degree after registering in the College of Law, and, by counting courses in law toward both the degree of A.B. and the degree of LL.B., take both degrees in six years, must during the first year in the College of Law take six hours in political or social science.

### Rules concerning Theses

The following are the rules concerning theses presented for the degree of Doctor of Law: 1. The thesis must be on a subject approved by the Dean of the Law School after consultation with him as to the proposed method of its treatment. 2. The subject of the thesis must be filed with the Secretary on or before December 20. 3. The thesis must be typewritten on paper  $8\frac{1}{2} \times 11$  inches, with at least one inch margin at the top, bottom and sides. 4. It should contain not less than 4,000 nor more than 10,000 words. 5. In citing cases, names of parties, volume, page, and year should be given. Citations are not to be counted in determining the number of words. The student is expected to exhaust the cases decided during the period covered by his thesis, and to state the period for which the cases have been examined. 6. The thesis must be delivered to the Secretary of the faculty not later than May 1.

The thesis may then be returned to the writer for revision, or it may if unsatisfactory be rejected altogether. If returned for revision it may be rejected after being revised. If accepted, it will be filed in the Law Library, and may be published by the College of Law or by the University.

# CERTIFICATE FOR ADMISSION TO THE ILLINOIS STATE BAR EXAMINATION

Any student unable to satisfy the entrance requirements and therefore not able to become a candidate for the degree of LL B., is, if he has a "preliminary general education equivalent to that of a graduate of a high school in this State," entitled to a certificate which will admit him to the State Bar examination, upon attending the College of Law three years and completing the following courses: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 18, 20, 26 (2nd and 3rd year), 4a, 15, 17, 19, 21, and 22. (This is in accordance with the rules of the State Supreme Court.)

# Course Leading to the Degree of LL. B.

### FIRST YEAR

FIRST SEMESTER: Contracts (Law 1); Criminal Law (Law 5); Personal Property (Law 6).

SECOND SEMESTER: Torts (Law 2); Real Property (Law 3); Common Law Pleading (Law 4); Domestic Relations (Law 7).

### SECOND YEAR

FIRST SEMESTER: Evidence (Law 8); Agency (Law 11); Equity (Law 12); Damages (Law 13); Moot Court (Law 26); Public International Law (Law 30).

SECOND SEMESTER: Real Property (Law 10); Wills (Law 18); Equity Pleading (Law 20); Moot Court (Law 26); Sales (Law 9); Carriers (Law 14); Future Interests in Property (Law 27); Insurance (Law 28); Conveyancing (Law 29); Quasi-Contracts (Law 32).

### THIRD YEAR

FIRST SEMESTER: Illinois Procedure (Law 4a); Bills and Notes (Law 15); Constitutional Law (Law 22); Moot Court (Law 26); Trusts (Law 16); Municipal Corporations (Law 24).

SECOND SEMESTER: Private Corporations (Law 17); Partnership (Law 19); Suretyship (Law 21); Moot Court (Law 26); Mortgages (Law 23); Bankruptcy (Law 25); Conflict of Laws (Law 31).

### PRIVILEGES OF STUDENTS

The students of the College of Law may take, without extra fee, courses of study in other departments of the University, provided they secure the approval of the Dean of the College of Law. Especial attention is called to the courses in public speaking and debate, and to the courses in history, economics, and political science in the College of Literature and Arts and the Graduate School.

Law students are entitled to library privileges in the general library as well as in the law library, and possess in general all the rights and privileges enjoyed by other students of the University.

#### LAW CLUBS

The law students have organized voluntary associations for the discussion of interesting and important questions of law, and for the trial of hypothetical cases of their own choice. Four of these societies are active at present. They are known as the Van Twiller, Witenagemot, John Marshall, and Fuller club courts.

### SCHOLARSHIP PRIZES

Eight scholarship prizes are open to matriculated students of the first and second years, to be awarded at the end of each year, four for \$50 each and four for \$25 each.

# THE COLLEGE OF MEDICINE

For the Faculty of the college of Medicine, see p. 37.

### HISTORY

The College of Medicine (College of Physicians and Surgeons of Chicago) is located on the corner of Congress and Honore streets, Chicago, in the heart of the medical quarter of the city. It was founded in the year 1882. In 1892 the College erected a commodious laboratory building, the first building exclusively for laboratory purposes erected by any medical institution in the West. It became the Medical Department of the University in April, 1897.

### BUILDINGS AND EQUIPMENT

The College buildings occupy three-fourths of a city block lying between Harrison, Congress, Honore, and Lincoln streets. The main building, in which are housed all the departments, except that of anatomy, is a brick and stone structure two hundred feet long by one hundred and ten feet deep, and five stories high. It fronts on four streets, and is freely supplied with air and light. This building contains three large lecture rooms with a seating capacity of two hundred each; a clinical amphitheater, modeled on modern plans for perfect asepsis, with a seating capacity of over three hundred; an assembly hall with a seating capacity of seven hundred; besides recitation rooms. It also contains special laboratories for physiology, chemistry, pathology, bacteriology, materia medica, and microscopical and chemical diagnosis, each capable of accommodating from fifty to two hundred students at a time. The assembly hall is so constructed that it may be converted into a gymnasium. The essential appliances of a well-equipped gymnasium, including a number of shower baths, are installed.

A three-story annex to the main building, especially designed and constructed for laboratory use, is used by departments of biology, histology, embryology, pathology, bacteriology, and chemistry. All of these laboratories have unobstructed outside light. They are fur-

nished with convenient and substantial work tables, desks, and lockers, and are equipped with modern apparatus. There is a supply of microscopes and lenses, including as many oil immersions as are needed, and a new projection apparatus for the illustration of lectures in pathology and other departments by means of stereopticon views.

### CLINICAL FACILITIES

### DISPENSARY CLINICS

The Dispensary occupies the entire first floor of the main building. Connected with the reception room are ten clinic rooms in daily use for the purpose of clinical instruction. During the past five years there have been treated in these rooms an average of 10,000 patients each year.

During the junior year these clinics are elective, but during the senior year each student is required to take a course of instruction in each department under the direction of members of the faculty. The student has the opportunity to examine and treat the patient himself under the guidance of teachers, and thus receives practical experience.

### AMPHITHEATER CLINICS

More than 600 clinics besides the dispensary clinics are given in the Collega during the collegiate year. Practically all diseases seen in the temperate zone are demonstrated, and all of the operations of surgery are done in these clinics.

Senior students are selected to examine and diagnosticate many of these cases and are detailed to assist in the operations. Senior students are also appointed as internes for fixed periods, and they receive special certificates for such service.

### MATERNITY CLINICS

To provide clinical material for the practical instruction of students in obstetrics the College contributes to the support of obstetrical wards in the University and West Side Hospitals. Daily clinics are held in which the management of gravidæ and puerperæ and newborn infants is demonstrated. All students are required to attend these clinics in sections as a part of the college dispensary work. Opportunity is also given special students to attend cases of labor in the hospital.

All fourth-year students are also required to take a course of two weeks in residence in the Chicago Lying-In Hospital and Dispensary, which is now under the joint direction of the obstetrical departments of the College of Physicians and Surgeons and of Northwestern University. The Dispensary, situated in the heart of a densely populated part of the city, cares for poor women during their confinement at their homes. A physician, a student, and a nurse are sent to the home of the patient and care for her during labor like a private patient. The student and nurse visit mother and babe daily for ten days afterwards. In this service the students learn to provide the necessary obstetrical outfit and to deal with patients in their homes.

In the senior year, attention is given chiefly to pathological conditions and to obstetric operations. Instruction is given by lectures, quizzes, exercises on the manikin, and the study of pathological specimens as well as through the required attendance upon clinics.

The fee for the course is \$15.00, payable in advance at the hospital.

#### HOSPITAL CLINICS

The West Side Hospital, which contains 125 beds, is connected with the College by a corridor. The University Hospital, opposite the College, contains 100 beds, two operating rooms, and a clinical amphitheater seating seventy-five. These institutions are intimately belated to the College and the clinical facilities furnished by them are open to its students.

Within half a block of the College is the Cook County Hospital. This institution is the chief free hospital in Chicago. During the past year it has cared for 30,000 patients. In this hospital is conducted much of the clinical instruction of the College.

Medical appointments in this institution are made by the Civil Service Board each year. The internes, thirty-four in number, and externes, are selected each spring by competitive examinations. Only graduates of medical colleges of Cook County are eligible for these examinations. The internes serve eighteen months, and receive their board and laundry and have rooms in the hospital. They do a large amount of surgical, medical and obstetrical work.

The students of this College are required to attend the clinics of the Cook County Hospital during their junior and senior years. The hospital tickets cost \$5 each. They admit the holders to all clinics and autopsies, and to all public operations and lectures in the hospital grounds.

In addition to Cook County Hospital, there are more than sixty public and private hospitals in Chicago. All of these hospitals appoint from two to four internes annually.

The County Morgue is located in the hospital grounds, and daily post-mortems are held by the pathologists of the hospital. The students are required to attend during two years.

Members of the faculty are connected with and give clinical instruction, to which students are admitted under certain conditions. in the following hospitals:

Cook County Hospital

West Side Hospital Augustana Hospital St. Anne's Hospital

Woman's Hospital

Samaritan Hospital

Alexian Brothers' Hospital

St. Mary's Hospital Chicago Hospital Baptist Hospital

Illinois Eye and Ear Infirmary Norwegian Deaconess Hospital

Tabitha Hospital

### EXTRA MURAL CLINICS

Arrangements exist with several hospitals whereby the senior students are permitted to attend both amphitheater and dispensary clinics in groups of from six to twenty-four. Attendance upon these clinics is elective, but is accepted upon certain conditions in lieu of attendance upon registered clinics; such conditions will be defined by the Secretary. Arrangements have also been made whereby bedside instruction may be given in sections.

Opportunities for externe service (practically the work of junior interne) are abundant for senior students whose didactic work does not conflict. These courses are arranged in advance either through the Secretary or through some member of the attending staff.

# QUINE LIBRARY

The Library, which is located in the College building, ranks second in size among the medical libraries of Chicago. It was named in honor of the present Dean of the institution. The bound volumes now number more than 13,500, and include practically every important text-book and monograph on medical subjects in the English language. One hundred and twenty medical periodicals are received regularly. This collection of books and periodicals is systematically classified and catalogued by a trained librarian, who is constantly present to assist and instruct students in the correct and independent use of a large, technical library.

### SCHOLARSHIPS

Through the munificence of the late Professor R. L. Rea a fund has been provided for four scholarships each year for indigent worthy

students. These scholarships will be awarded by the officers of the faculty to four students whose credentials and qualifications for the study of medicine entitle them to participate in the benefits of the Rea fund.

The students whose names follow received benefit under the above scholarship during the session of 1909-10:

Charles Patton Blair

James Matthew Conerty

George William Gindele

Gordon Graham Thompson

The Emily W. S. Schofield Scholarship of the Northwestern branch of the Woman's Foreign Missionary Society of the M. E. Church was awarded in 1909-10 to

Anna Elizabeth Isham.

The scholarship given by the Woman's Presbyterian Board of Missions of the Northwest was awarded in 1909-10 to

Zerefeh E. Bashur.

#### ADMISSION

For a statement of the general entrance requirements of the University, see pp. 83ff.

The College of Medicine prescribes two units\* in the same foreign language (Latin, French, or German), one unit in history, and one unit in physics, in addition to the subjects prescribed by all the colleges of the University (see "List A," p. 83).

The requirements of the College of Medicine may be summarized as follows:

I. List A, prescribed by all the colleges

of the University-

Algebra ...... 1½ units\* English composition..... 1 unit

English literature..... 2 units Geometry, plane...... 1 unit 51/2 units

unit

units

II. Subjects prescribed in addition by

the College of Medicine-

Foreign language..... 2 units (Latin, French, or German

accepted; both units must be in the same language)

History ..... 1 unit

\*For a definition of the term "unit," see p. 83, footnote.

Physics . . . . . . . . . . . . . . . . . . 1

III. Electives, chosen from Lists B and C, pp. 84, 85 (not more than three units from List C)....

5½ units

### ENTRANCE EXAMINATIONS, 1911

Examinations for admission to the College of Medicine in September, 1911, will be held by the Registrar of the University both at the University in Urbana, and at the College of Medicine, corner Congress and Honore streets, Chicago.

For a description of the ground covered by the examinations in the several subjects, see pp. 86-94

Programs of these examinations may be had by applying to Dr. Frank B. Earle, Secretary, College of Medicine, or to C. M. McConn, Registrar, Urbana,

### ADMISSION AS SPECIAL STUDENTS

The general rule of the University will apply to the College of Medicine: persons over twenty-one years of age, not candidates for a degree, may, on special approval of the Dean, be admitted to classes for which they are prepared.

Courses in practical anatomy especially designed for practitioners are given under the direction of the professor of anatomy. Such students are required to pay the matriculation fee of \$5.00 and a breakage deposit of \$20.00 for the winter term, and in addition \$20.00 or more per term, according to the amount of work taken in each course of study.

Special students are not given credit for time.

#### ADVANCED STANDING

The University of Illinois will accept scholarship and time credits for work done in the Medical Colleges of Class A in the list of the American Medical Association, and in the Colleges of the Association of American Medical Colleges, in so far as this work coincides with, or is the full equivalent of, the courses prescribed by the College of Physicians and Surgeons, and will accept scholarship and time credits from no other schools. Students thus advanced may not complain of any conflict of hours, nor absent themselves from any part of the lower conflicting course; but they may make up deficiencies in the work of one term in any other term in which such work is offered.

Physicians who have been graduated from medical schools recognized at the time of graduation by the boards of health of the states in which they are located, who have passed state board examinations, who have been in active practice for not less than five years, and who are in good standing in the medical societies of their cities or counties, may be admitted to the senior class. Official credentials covering all the conditions named must be furnished in advance.

### REGISTRATION

Students are required to register in the office of the Secretary immediately upon the opening of the term for the work in that term, and credit will be allowed only in the branches in which the students are registered. Students will be registered in the order in which their fees are paid.

#### TERMS

The collegiate year is divided into two terms, called respectively the winter term and the summer term.

The winter term consists of a session of thirty-six weeks beginning September 27, 1910, and ending June 6, 1911, at which time degrees will be conferred. Attendance upon the full winter term is required in order to secure credit for a year's work and attendance upon four winter terms is required for graduation.

The summer term consists of a session of twelve weeks, beginning June 8, 1911. The schedule for the summer term will be issued in March, 1911, and can be had upon application. This course is open to both graduates and undergraduates. It affords opportunities to practitioners to do work along special lines. Undergraduates who attend it will receive credit for the same, either toward making up any study in which they are deficient, or as a credit toward the work of the next winter session, except in the studies of the senior year, which will be final only for those who have taken a previous course of instruction in those studies. Summer students are given scholarship credit, but the time spent does not apply on the required attendance for graduation.

#### FEES AND EXPENSES

For a statement of fees, see p. 121.

The expense of living in Chicago is less than in most other large cities. Twenty-five dollars a month may be regarded as adequate for the ordinary living expenses of a student.

The expense for books varies between \$15.00 and \$25.00 a year. The professors, at the beginning of each course, instruct their students in regard to the purchase of text-books.

### COURSES OFFERED

The student is offered his choice of the following courses:

He may take the entire course of four years offered in the College of Science at Urbana, followed by four full years in the College of Medicine in Chicago, making a continuous course of eight years.

A second, six-year course may be made up by taking the first three years of the medical course in the College of Science at Urbana, and the last three years in the College of Medicine in Chicago. This furnishes a medical course of six years, with two degrees—Bachelor of Arts at the end of the fourth year, and Doctor of Medicine at the end of the sixth year. For the subjects prescribed for the first three years of the six-year course, see p. 158.

The student may, in the third place, take merely the four years in the medical course as it is offered in the College of Medicine in Chicago.

# REQUIREMENTS FOR GRADUATION

1. Satisfactory evidence of good moral character. 2. Attendance during four collegiate years, the last of which must have been in this institution, and the completion of the required work of each year. 3. Satisfactory deportment. 4. Payment in full of all fees

### GENERAL PLAN OF INSTRUCTION

The curriculum required for graduation extends over four years. During the first two years the work is largely confined to the sciences fundamental to practical medicine, and the time of the student is about equally divided between didactic and laboratory instruction. During the freshman year the course consists of work in anatomy, biology, histology, embryology, physiology, chemistry, pharmacy, and bacteriology. During the sophomore year the study of anatomy, physiology, and chemistry is continued, and in addition the student takes up therapeutics, pathology, and autopsies.

This plan contemplates the freest use of laboratory teaching. Wherever possible, practical laboratory work is made to supplement didactic teaching. Students are taught to prepare their own specimens from the original material, and are thus made familiar with technical methods.

During the junior and senior years the time is devoted to practical medicine and surgery, and is about equally divided between didactic instruction and clinical work in small classes and as much as possible at the bedside.

Attendance upon clinics is required and students are graded upon, and given credit for, their work in the clinical courses, just as they are for the work in the didactic and laboratory courses. The students of the junior and senior years are divided into classes for dispensary work, and these classes have instruction in rotation in the various departments of practical medicine and surgery.

### DESCRIPTION OF COURSES

### FRESHMAN YEAR.

1. Human Anatomy.—Osteology; myology; arthrology; angiology (including the heart); phlebology; neurology; the respiratory and alimentary systems. Gray's Anatomy (2nd Am. ed.); Cunningham; Morris; Spalteholz; Sobotta & McMurrich's Anatomical Atlases; Santee's Brain and Spinal Cord; Barker's Anatomic Nomenelature (BNA). I, II; lec. and rec., 4-144; lab., 4-144.

Professor White

- 2. Biology.—One semester; lec. and rec., 1-18; lab., 1-18.

  Professor Wynekoop
- 3. Histology and Embryology.—Bailey; Stochr; Shafer; Heisler; Bailey & Miller. I, II; lec., 3-108; lab., 4-144.

Professor Wynekoop, Adjunct Professor L. L. Wynekoop, Dr. F. M. Horstman.

4. Physiology.—The blood; lymph; muscle; nerves. Experiments and demonstrations. Howell's *Textbook of Physiology*; Tiegerstedt; Stewart; Hall. *One semester*; lec., 3-54.

Professor Dreyer

- 5. GENERAL CHEMISTRY.—Remsen; Simon; Holland; Jones. I, II; lee, and rec., 4-144; lab., 6-216. Professor HAWTHORNE
- 6. Prescription Writing and Pharmacy.—Weights and measures; the preparation of galenicals; their incompatibles; the principles of prescription writing; specimen pharmaceutical preparations made by the student; individual drill in writing prescriptions. Fantus: Prescription Writing and Pharmacy. One semester; lec. and rec., 1-18; lab., 1-18.

Adjunct Professor Heintz, Dr. Lorch, Dr. Irish, Dr. Haskell

7. Bacteriology.—Methods of cultivation of bacteria; identification of species; ten non-pathogenic and ten pathogenic bacteria.

Zapfe; Abbott; reference: Chester; McFarland. One semester; lec., 2-36; lab., 6-108.

Professor Gehrmann

### SOPHOMORE YEAR

- 1. Human Anatomy.—Dissection: head; neck; trunk; thoracic and abdominal organs; the genitalia; perineum; peripheral nervous system; the human brain and spinal chord. Study: the neurone and its supporting tissue; histological sections of all parts of the nervous system. Lectures and demonstrations: the organs of respiration, circulation, and digestion; the ductless glands; genito-urinary organs; organs of the senses; the central and sympathetic nervous systems. Morris's Human Anatomy, (4th ed.); Cunningham; Piersol; Gray; Santee's Brain and Spinal Chord; Cunningham's Practical Anatomy; Spalteholz; Barker's BNA. I, II; dem. and quiz., 3-108; lab., 4-144.
- 2. Physiology.—Circulation; respiration; secretion; digestion; nutrition; the special senses; the nervous system. Laboratory: normal haematology; the physiology of muscle and nerve; the organs of circulation and respiration. Experiments on man capable of direct clinical application introduced wherever possible; each student expected to perform at least two blood-pressure experiments on the mammal with the endless roll kymograph, under the direct supervision of an instructor. Howell's Textbook of Physiology; Tiegerstedt; Stewart; Hall. I; lec., 4-72; lab., 3-54; II; lec., 3-54; lab., 3-54.
- 3. Physiological and Pathological Chemistry and Toxicology.—Ailmentary principles and foods; digestive secretions and their actions; solid tissues; blood; milk; urine; identification of poisons. Hawk; Hammersten; Simon, I, II; lee. and rec., 3-108; lab., 3-108. Professor Dreeyer
- 4. PHARMACOLOGY AND THERAPEUTICS.—The action and uses of medicines; the symptoms, morbid anatomy, and treatment of poisoning. Hydrotherapy; electrotherapy; mechanotherapy; dietetics; elimatology. Cushny; Sollmann; Baruch; Hutchinson; Morton; Cohen's System (selected vols.). I, II; lec. and rec., 5-180; lab. 64. Professor Fantus, Adjunct Professor Heintz, Dr. IHASKELL, Dr. IRISH, Dr. LORCH, Dr. TREADWELL

5. GENERAL PATHOLOGY AND PATHOLOGICAL ANATOMY.—Delafield and Prudden. I, II; lec., 2-72; lab., 4-144.

Associate Professor O'BRYNE, Demonstrator Moore

6. Autopsies.—II; 2-36. Associate Professor O'Bryne

### JUNIOR YEAR

1. Practice of Medicine.—Infectious diseases and intoxicants, constitutional diseases and diseases of the kidneys. Diseases of the digestive organs. Diseases of the nervous system. French. I, II; rec., 6-216.

Adjunct Professor E. G. Earle, Dr. Eisenstaedt, Dr. Gardner, Dr. Jackson, Dr. Corcoran

2. Physical Diagnosis.—Lectures; personal training; practice in the Dispensary. Da Costa. One semester; 60.

Professor Corwin, Professor Wiggin

- 3. Dermatology.—Pusey. One semester; lec., 2-36.
  - Professor Pusey, Adjunct Professor Harris, Dr. Stillians
- 4. Practice of Surgery.—DaCosta's Modern Surgery. I, II; rec., 3-108.

Professor Sherwood, Adjunct Professor Humiston, Adjunct Professor O'Bryne, Dr. Moore, Dr. Dyas, Dr. Harger

- 5. ORTHOPEDIC SURGERY.—Bradford and Lovett; Whitman. One semester; lec., 1-18.

  Professor Porter
- 6. OPERATIVE SURGERY.—Trevis; Bryant; Bickham; Wharton and Ochsner. One semester; lec., 2-36. Professor Fuller, Dr. Yerger
  - 7. Surgical Pathology.—Beck. One semester; lab. 2-36.

Professor Beck

- 8. Laryngology, Rhinology, and Otology.—Ballenger. One semester; lec. 1-18.

  Professor Ballenger
- 9 Obstetrics.—The physiology of pregnancy, labor and the puerperium. Bedside instruction at the West Side Hospital. Bacon's Synopsis, Edgar; Williams; Hirst; Peterson. One semester; rec. 2-36.

  Professor Yarros, Assistant Professor Goldstine
- 10. MICROSCOPICAL AND CHEMICAL DIAGNOSIS.—Supplementary to the regular work, students are required to do practical work in M. and C. diagnosis in the Dispensary. *One semester;* lec. and quiz, 1-18; lab., 10-30.

Professor Gardner, Assistant Professor Hayhurst

- 11. MEDICAL JURISPRUDENCE.—Reese. One semester; lcc., 1-18.
  Professor Brothers, Dr. Mills
- 12. DISPENSARY CLINICS\* .- One semester; 12-216.
- 13. MEDICAL CLINIC.—I, II; 1-36. Professor Wells
- 14. MEDICAL CLINIC.—I, II; 1-36. Professor GOODKIND
- 15. MEDICAL CLINIC.—I, II; 1-36. Professor Fantus
- 16. MEDICAL CLINIC.—I, II; 1-36.

Associate Clinical Professor Michel, Extra Mural

17. NEUROLOGICAL CLINIC.—I, II; 1-36.

Assistant Professor H. I. Davis

- 18. DERMATOLOGICAL CLINIC.—I, II; 1-36. Professor Pusey
- 19. SURGICAL CLINIC.—I, II; 2-72. Professor EISENDRATH
- 20. SURGICAL CLINIC.-I, II; 1-36. Professor Eisendrath
- 21. SURGICAL CLINIC .-- I, II; 1-36. Adjunct Professor Heineck
- 22. SURGICAL CLINIC (Orthopedic).—I, II; 1-36.

Professor Porter

- 23. Surgical Clinic.—I, II; 1-36. Professor Beck
- 24. SURGICAL CLINIC.—I, II; 1-36. Adjunct Professor Humiston
- 25. LARYNGOLOGICAL CLINIC .-- I, II; 2-72. Professor BALLENGER
- 26. LARYNGOLOGICAL CLINIC .-- I, II; 2-72.

Associate Clinical Professor Brown

27. LARYNGOLOGICAL CLINIC .-- I, II; 1-36.

Clinical Professor Joseph Beck

28. GYNECOLOGICAL CLINIC.-I, II; 2-72. Professor VAN HOOSEN

### SENIOR YEAR

1. Practice of Medicine.—Osler's  $Modern\ Medicine$ ; French.  $I,\ II$ ; lec. and rec., 5-180.

Professor Quine, Associate Professor Williamson

2. NEUROLOGY.—Gowers. One semester; lec. and rec., 4-72.

Professor King, Adjunct Professor C. B. King

<sup>\*</sup> The Dispensary is divided into ten Departments.

During the Junior year each student is required to attend the Dispensary two hours daily for one semester, during which time he takes a course of instruction in each of these departments.

The time is equally divided between the departments.

The two-hour period in Dispensary is estimated equal to one hour of didactic work.

- 3. PSYCHIATRY.—Defendorf. One semester; lec., 2-36.
  Professor OSCAR A. King, Adjunct Professor C. B. King, Assistant
  Professor Darling
- 4. DISEASES OF THE CHEST.—On the lungs, Lindsay. On the heart and arterial system, Colbeck. *One semester;* lee. and rec., 3-54.

  Professor Tice
- 5. Pediatrics.—Holt; Chapin and Pizek; Cotton. One semester; lec., 3-54. Professor Frank B. Earle, Assistant Professor Benson
  - 6. PRACTICE OF SURGERY .-- I, II; lec., 2-72. Lectures:

Surgery of the Head, Professor Davis.

Surgery of the Neck, Professor Ochsner.

Surgery of the Thorax, Professor Harsha.

Surgery of the Upper Abdomen, Professor Steele.

Surgery of the Lower Abdomen, Professor Davison.

Surgery of the Genito-urinary Organs, Professor Lydston.

Hernia and Post Operative Complications, Professor Ferguson.

Surgery of the Extremities and Anesthesia, Professor EISENDRATH.

- 7. GENITO-URINARY SURGERY AND VENEREAL DISEASES.—Lydston.

  One semester; lec., 1-18. Professor Lydston
- 8. OPHTHALMOLOGY.—Fuchs; Fox; De Schweinitz; May; Jackson. One semester; lec., 1-18.

Professor Harper, Professor Gamble, Professor Loring, Assistant Professor Findlay

9. Obstetrics.—Pathological conditions and obstetric operations; exercises on the manikin; pathological specimens; Hospital Clinics in the West Side and University Hospital; two weeks in residence at the Chicago Lying-in Hospital and Dispensary. Bacon's Synopsis; Williams; Edgar; Hirst; Peterson. I, II, lec., dem., and quiz, 2-72.

Professor Bacon, Assistant Professor Bachelle, Assistant Professor Hollenbeck, Assistant Professor Goldstine, Dr. Rohrlack

10. GYNECOLOGY.—Byford; Penrose; Reed; Clarke's Gynecological Diagnosis. One semester; lec., 2-36. Professor BARRETT

- 11. Hygiene.—Bergey; Harrington; McFarland; Park. One semester; lec., 2-36. Professor Gehrmann
  - 12. Autopsies.—One semester; 2-36.

Associate Professor O'BYRNE

13. DISPENSARY CLINICS .- Optional.

10 11]	Senior 1 cur	-2/5
14.	MEDICAL CLINIC.—I, II; 1-36.	Professor Wells
15.	MEDICAL CLINIC.—I, II; 2-72.	Professor Williamson
16.	MEDICAL CLINIC.—I, II; 1-36.	Professor Williamson
17.	MEDICAL CLINIC.—I, II; 1-36.	Professor GOODKIND
18.	MEDICAL CLINIC.—I, II; 1-36.	Professor Tice
19.	MEDICAL CLINIC.—I, II; 1-36.	Professor Patton
20.	NEUROLOGICAL CLINIC.—I, II; 1-36.	Professor King
21.	NEUROLOGICAL CLINIC.—I, II; 1-36.	Professor METTLER
22.	NEUROLOGICAL CLINIC.—I, II; 1-36.	
	Assistant Clinic	al Professor H. I. Davis
23.	PEDIATRIC CLINIC.—I, II; 1-36.	
	Professor Earle, Ass.	istant Professor Benson
24.	PEDIATRIC CLINIC.—I, II; 1-36.	Dr. French
25.	PEDIATRIC CLINIC I, II; 1-36. Adj	unct Professor Koehler

SURGICAL CLINIC.-I, II; 2-72. 26.

Professor Steele

27. SURGICAL CLINIC .- One semester; 1-18. Professor Steele

28. SURGICAL CLINIC .-- I, II; 2-72.

Professor Steele

29. SURGICAL CLINIC .-- I, II; 2-72. Professor Davis

30. SURGICAL CLINIC .-- I, II; 2-72.

Professor Davis Professor Harsha

31. SURGICAL CLINIC.-I, II; 2-72. 32. SURGICAL CLINIC .-- I. II: 2-72.

Professor OCHSNER

33. SURGICAL CLINIC.—I, II; 2-72.

Professor Ferguson

34. SURGICAL CLINIC .-- I, II: 1-36. Professor Davison Professor Davison

35. SURGICAL CLINIC.-I, II; 2-72.

36. SURGICAL CLINIC (Genito-Urinary) .-- I, II; 1-36.

Professor Lydston

37. OPHTHALMOLOGICAL CLINIC.—I, II; 1-36.

Professor Harper, Professor Loring, Professor Gamble, Assistant

Professor FINDLAY

OPHTHALMOLOGICAL CLINIC .-- I, II; 1-36. Professor FISHER

39. OPHTHALMOLOGICAL CLINIC.—I, II; 1-36.

Associate Clinical Professor Noble, Extra Mural

40. GYNECOLOGICAL CLINIC.-I, II; 2-72.

Professor Byford, Associate Professor Barrett, Adjunct Professor BRUMBACK

# TOTAL HOURS OF WORK

# FRESHMAN YEAR

TRESHMAN IEAR			
Didactic	Laboratory		
1. Anatomy 144	144		
2. Biology	36		
3. Histology and Embryology 108	144		
4. Physiology 54			
5. General Chemistry 144	216		
6. Prescription Writing and Pharmacy 18	18		
7. Bacteriology	108		
522	666		
SOPHOMORE YEAR	000		
Didactic Didactic	Laboratory		
	Laboratory		
1. Anatomy	144		
2. Physiology 126	108		
3. Physiological and Pathological Chemistry	400		
and Toxicology	108		
4. Pharmacology and Therapeutics 180	64		
5. Pathology 72	144		
6. Autopsies	36		
<del></del>			
594	604		
JUNIOR YEAR			
Specified Required Subjects	Hours		
1. Medicine			
Course A-Infectious Diseases and Intoxicants, 54 hours.			
Course B-Constitutional Diseases and Diseases of the Kidney,			
54 hours.			
Course C—Diseases of the Digestive Organs, 54 hours.			
Course D—Diseases of the Nervous System, 54 hours.			
2. Physical Diagnosis			
3. Dermatology			
4. Surgery			
5. Surgical Pathology			
6. Laryngology, Rhinology, and Otology			
7. Obstetrics			
8. M. & C. Diagnosis			
9. Medical Jurisprudence			
*			
10. Dispensary Clinics	<del></del> 768		
	100		

Elective	Subjects	Hours		
1.	Orthopedic Surgery	. 18		
2.	Operative Surgery	. 36		
3.	Medical Clinic (Wells)	. 36		
4.	Medical Clinic (Goodkind) C. C. Hosp	. 36		
5.	Medical Clinic (Fantus)			
6.	Medical Clinic (Michel) W. S. Hosp	. 36		
7.	Neurological Clinic (H. I. Davis)			
s.	Dermatological Clinic (Pusey)	. 36		
9.	Surgical Clinic (Eisendrath)			
10.	Surgical Clinic (Eisendrath)			
11.	Surgical Clinic (Heineck)			
12,	Surgical Clinic-Orthopedic (Porter)C.C. Hosp			
13.	Surgical Clinic (Beck)			
14.	Surgical Clinic (Humiston)			
15.	Laryngological Clinic (Ballenger)			
16.	Laryngological Clinic (Brown)			
17.	Laryngological Clinic (Beck)			
18.	Gynecological Clinic (Van Hoosen)	. 72		
			774	
SENIOR YEAR				
	SENIOR YEAR			
Specified	Required Subjects	Hours		
1.	d Required Subjects  Medicine	.180		
1. 2.	l Required Subjects Medicine Neurology	.180 .72		
1. 2.	l Required Subjects Medicine Neurology Psychiatry	.180 . 72 . 36		
1. 2. 3. 4.	Required Subjects Medicine Neurology Psychiatry Chest Diseases	.180 . 72 . 36 . 54		
1. 2. 3. 4. 5.	Required Subjects Medicine Neurology Psychiatry Chest Diseases Pediatrics	.180 . 72 . 36 . 54 . 54		
1. 2. 3. 4. 5. 6.	Required Subjects Medicine Neurology Psychiatry Chest Diseases Pediatrics Surgery	.180 . 72 . 36 . 54 . 54 . 72		
1. 2. 3. 4. 5. 6. 7.	Required Subjects Medicine Neurology Psychiatry Chest Diseases Pediatrics Surgery Genito-Urinary Surgery and Venereal Diseases	.180 . 72 . 36 . 54 . 54 . 72 . 18		
1. 2. 3. 4. 5. 6. 7. 8.	Required Subjects Medicine Neurology Psychiatry Chest Diseases Pediatrics Surgery Genito-Urinary Surgery and Venereal Diseases. Ophthalmology	.180 . 72 . 36 . 54 . 54 . 72 . 18		
1. 2. 3. 4. 5. 6. 7. 8.	Required Subjects Medicine Neurology Psychiatry Chest Diseases Pediatrics Surgery Genito-Urinary Surgery and Venereal Diseases Ophthalmology Obstetrics	.180 . 72 . 36 . 54 . 54 . 72 . 18 . 18		
1. 2. 3. 4. 5. 6. 7. 8. 9.	Required Subjects Medicine Neurology Psychiatry Chest Diseases Pediatrics Surgery Genito-Urinary Surgery and Venereal Diseases. Ophthalmology Obstetrics Gynecology	.180 . 72 . 36 . 54 . 54 . 72 . 18 . 18 . 72 . 36		
1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	Required Subjects Medicine Neurology Psychiatry Chest Diseases Pediatrics Surgery Genito-Urinary Surgery and Venereal Diseases. Ophthalmology Obstetrics Gynecology Hygiene	.180 . 72 . 36 . 54 . 54 . 72 . 18 . 18 . 72 . 36 . 36		
1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	Required Subjects Medicine Neurology Psychiatry Chest Diseases Pediatrics Surgery Genito-Urinary Surgery and Venereal Diseases. Ophthalmology Obstetrics Gynecology	.180 . 72 . 36 . 54 . 54 . 72 . 18 . 18 . 72 . 36 . 36	<i>COA</i>	
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11.	Required Subjects Medicine Neurology Psychiatry Chest Diseases Pediatrics Surgery Genito-Urinary Surgery and Venereal Diseases. Ophthalmology Obstetrics Gynecology Hygiene Autopsies	.180 . 72 . 36 . 54 . 54 . 72 . 18 . 18 . 72 . 36 . 36	684	
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12.	Required Subjects Medicine Neurology Psychiatry Chest Diseases Pediatrics Surgery Genito-Urinary Surgery and Venereal Diseases. Ophthalmology Obstetrics Gynecology Hygiene Autopsies Subjects	.180 . 72 . 36 . 54 . 54 . 72 . 18 . 18 . 72 . 36 . 36 . 36	684	
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. Elective 1.	Required Subjects Medicine Neurology Psychiatry Chest Diseases Pediatrics Surgery Genito-Urinary Surgery and Venereal Diseases. Ophthalmology Obstetrics Gynecology Hygiene Autopsies Subjects Medical Clinic (Wells)	.180 . 72 . 36 . 54 . 54 . 72 . 18 . 18 . 72 . 36 . 36 . 36 . 36	684	
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1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. Elective 1. 2. 3.	Required Subjects Medicine Neurology Psychiatry Chest Diseases Pediatrics Surgery Genito-Urinary Surgery and Venereal Diseases. Ophthalmology Obstetrics Gynecology Hygiene Autopsies  Subjects Medical Clinic (Wells) Medical Clinic (Williamson) Medical Clinic (Williamson) Medical Clinic (Williamson) C. C. Hosp	.180 . 72 . 36 . 54 . 54 . 72 . 18 . 18 . 72 . 36 . 36 . 36 . 36 . 36 . 36 . 36 . 36 . 36	684	
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. Elective 1. 2. 3.	Required Subjects Medicine Neurology Psychiatry Chest Diseases Pediatrics Surgery Genito-Urinary Surgery and Venereal Diseases. Ophthalmology Obstetrics Gynecology Hygiene Autopsies  Subjects Medical Clinic (Wells) Medical Clinic (Williamson)	.180 . 72 . 36 . 54 . 54 . 72 . 18 . 18 . 72 . 36 . 36 . 36 . 36 . 36 . 72 . 36 . 36	684	

6.	Medical Clinic (Patton)	36
7.	Neurological Clinic (King)	36
8.	Neurological Clinic (Mettler)	36
9.	Neurological Clinic (H. I. Dav.s)C. C. Hosp.	
10.	Pediatric Clinic (Earle, Benson)	
11.	Pediatric Clinic (Hatfield)	
12.	Pediatric Clinic (Koehler)	
13.	Surgical Clinic (Steele)	
14.	Surgical Clinic (Steele)	
15.	Surgical Clinic (Steele)U. Hosp.	
16.	Surgical Clinic (Davis)	
17.	Surgical Clinic (Davis)	
18.	Surgical Clinic (Harsha)	
19.	Surgical Clinic (Ochsner)	
20.	Surgical Clinic (Ferguson)	
21.	Surgical Clinic (Davison)	
22.	Surgical Clinic (Davison)	
23.	Surgical Clinic-Genito-Urinary (Lydston)	
24.	Ophthalmological Clinic (Harper or Loring)	
25.	Ophthalmological Clinic (Fisher)	
26.	Ophthalmological Clinic (Noble)W. S. Hosp.	
27.	Gynecological Clinic (Byford)	
28.	Dispensary Clinics	-
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### SHMMARY

As will be seen from the foregoing tables, the College offers work in the several years as follows: In the freshman year, 522 hours of didactic and 666 hours of laboratory instruction; in the sophomore year, 594 hours of didactic and 604 hours of laboratory instruction, all of which is required; in the junior year, 1,542 hours of didactic and clinical instruction; and in the senior year, 1,998 hours of didactic and clinical instruction. In the junior and senior years, 1,000 hours of instruction constitutes a year's work. Each student is required to take all the "Specified Required Subjects'" in his year. In the junior year these subjects amount to 768 hours. The remaining 232 hours he can make up from the "Elective Subjects,'" exercising to a large extent his own choice in the selection of the subjects amount to 684 hours. The remaining 316 hours the student can select from the "Elective Subjects." It is required,

however, that in both the junior and senior years he shall include among his elective subjects at least 120 hours of medical clinics and 120 hours of surgical clinics.\* At the time of registration the student is required to designate the subjects which he elects in order to complete his 1,000 hours, and he will not be enrolled in the classes until his course has been approved by the Secretary. The Secretary has authority to refuse to approve of the course selected by any student when for any reason it seems to him not well selected.

# FURTHER INFORMATION

For the special circular of the College of Medicine, address

Dr. Frank B. Earle, Secretary

Congress and Honore Streets, Chicago

Clinics in Diseases of the Chest, Nervous System, Pediatrics, and Dermatology are classified as medical.

# THE COLLEGE OF DENTISTRY

For the faculty of College of Dentistry see p. 43.

# BUILDINGS AND EQUIPMENT

The College occupies its own building, situated on the corner of Harrison and Honore streets in Chicago. This building is a five-story stone and brick structure, constructed at a cost of \$100,000, and is occupied exclusively by the College of Dentistry. It is located directly opposite the Cook County Hospital, in the center of the clinical field of Chicago, and is thus insured of abundance of clinical material. Adjoining the college on the west is the West Side Hospital; on the north are the buildings of the College of Medicine.

The laboratories occupy four floors; each will accommodate 120 students. They are supplied with microscopes, immersion lenses, microtomes, and other necessary apparatus, including a new projection apparatus for the illustration of lectures with stereopticon views. Electric motors are in use in all laboratories.

The infirmary occupies the entire top floor. It is divided into operative, prosthetic, and orthodontia sections. These departments are equipped with chairs of the latest pattern, with fountain cuspidors attached, double-decked stands for accommodating students' operating cases, and sanitary wash-bowls with hot and cold water, and formaldehyde instrument sterilizer.

The Infirmary has adjacent to it a prosthetic laboratory, in which the students can do their molding, soldering, and fusing. Compressed air apparatus, electric ovens for porcelain work, electric lathes, and other apparatus are provided.

## ADMISSION

The requirements for admission to the College of Dentistry are the same as those for the College of Medicine. See pp. 266, 267.

This college will receive no student who is not present within ten days after the opening day of the session in each year; or, in case of necessary delay by reason of illness, properly certified by the attending physician, within twenty days after the opening day. It is desirable that students should register early, since the order of assignment of seats in the lecture halls is based upon the order of time of registration.

Students matriculating agree thereby to accept the discipline imposed by the faculty.

### ADMISSION TO ADVANCED STANDING

Persons having qualifications for admission to this college, and having studied dentistry in other schools for at least one year, may be admitted to advanced standing after satisfying the faculty that they have completed an amount of work equivalent to that which is exacted by this college in the respective classes.

Students having had one or more years in the College of Medicine, or other medical college of equal rank, are allowed credit toward graduation for so much of the required course in dentistry as was included in their medical course; but they must be registered for full time in the dental course.

Graduates of the University with the A.B. or B.S. degree, who have taken the biological and chemical courses of the University, can secure advanced standing in the dental course, providing they have done full work in the science subjects required in the dental curriculum.

Graduates of reputable medical colleges will be admitted to the junior class, and are excused from lectures and examinations upon general anatomy, chemistry, histology, pathology, and physiology, but are required to take lectures and examinations in dental subjects in accordance with the rules of the National Association of Dental Faculties.

# REQUIREMENTS FOR GRADUATION

The degree of Doctor of Dental Surgery will be conferred on students who shall have completed the course of instruction, attended the required time, performed the work required, and have passed satisfactory final examinations. To be eligible to the degree, the student must be twenty-one years of age, must possess a good moral character, and must have paid all fees.

### METHODS OF INSTRUCTION

Instruction is given by means of lectures and recitations, demonstrations, and laboratory work. The time of the student is about equally divided between laboratory and clinical work on the one

hand, and lectures and recitations on the other. The work of each session is complete in itself. Credits are given as the work proceeds.

Students are admitted to the laboratories from the beginning of the first year. The laboratory work is so arranged as to maintain the best relationship to the lectures and clinical studies.

In the clinical work, methods both of investigation and of reasoning are carefully and systematically taught. The diagnosis, prognosis, and indications for treatment will receive no less attention than the methods of construction and the technique of procedures.

## SUMMARY OF COURSE

# FRESHMAN YEAR

MATERIA MEDICA.—One lecture a week

ANATOMY.—Two lectures a week; dissection of the median half of the human body

Physiology.—To the nervous system. One lecture a week

HISTOLOGY.—One lecture and two hours of laboratory work a week

CHEMISTRY .- Lectures and laboratory, six hours a week

OPERATIVE TECHNICS.—Four half days a week

PROSTHETIC TECHNICS.—Three half days a week (laboratory).

DENTAL HISTORY .- Ten lectures

### JUNIOR YEAR

ANATOMY.—Two lectures a week; dissection of the median half of the human body

Physiology.—The nervous system. One lecture a week

MATERIA MEDICA AND THERAPEUTICS.—One lecture a week

GENERAL PATHOLOGY .- One lecture a week

CHEMISTRY.—Three hours of laboratory a week

HISTOLOGY.—General and Dental. One lecture and two hours of laboratory a week

PROSTHETIC DENTISTRY.—One lecture and two half days of laboratory a week; infirmary practice

ORTHODONTIA.—One lecture a week

ORTHODONTIA TECHNIC .- One-half day a week

OPERATIVE DENTISTRY.-Two lectures a week; infirmary practice

COMPARATIVE ANATOMY .-- Ten lectures

### SENIOR YEAR

DENTAL PATHOLOGY AND THERAPEUTICS.—Two lectures a week ORAL SURGERY.—One lecture and two hours of clinic a week

ORTHODONTIA.—One lecture and two hours of clinic a week

DENTAL JURISPRUDENCE AND ETHICS.—Ten lectures

PROSTHETIC DENTISTRY.—One lecture a week; infirmary practice OPERATIVE DENTISTRY.—Two lectures a week; infirmary practice

BACTERIOLOGY.-One lecture a week

GENERAL ANESTHESIA AND PHYSICAL DIAGNOSIS.—Ten lectures NEUROLOGY.—Eight lectures

PORCELAIN WORK .-- One lecture and one-half day of laboratory a week

# FEES AND EXPENSES

Fees are payable in advance. For a statement of the amounts see p. 121. Students unable to meet these requirements must make satisfactory arrangements with the DEAN or ACTUARY at the begining of the course.

For other expenses, see p. 124.

# FURTHER INFORMATION

For a special circular giving further information in regard to the College of Dentistry, address

THE DEAN OF THE COLLEGE OF DENTISTRY

Corner Harrison and Honore Streets

Chicago, Illinois

# THE SCHOOL OF PHARMACY

For faculty of the School of Pharmacy see p. 45.

### HISTORY

The School of Pharmacy was originally the Chicago College of Pharmacy and was incorporated under that name September 5, 1859. Prior to that time there were but three schools of pharmacy in the country, and these were located in the eastern states.

While the primary object of the institution was to provide instruction in the science and art of pharmacy, yet other functions were also developed. Thus, a code of ethics was early adopted by the members; successful efforts were made to bring about better relations between pharmacists and physicians; the pioneer pharmaceutical library was established; and for eighteen years beginning with 1868 a monthly journal, The Pharmacist—the first of its kind in the West,—was published.

In October, 1859, the first course of lectures was instituted, occupying three evenings a week for a period of six months. Of the first class, but two students were graduated in 1861. The war caused a suspension of the teaching, and the school was not reopened until 1870. The great fire in 1871 destroyed the equipment, but pharmacists throughout Europe and America extended help to the institution, furnishing a library and an outfit of apparatus, which became the nucleus of the present complete equipment. In 1872 the instruction was resumed for the second time and has since continued without interruption.

In 1880 the members and graduates of the College took an active part in the formation of the Illinois Pharmaceutical Association, which in the following year secured the passage of the pharmacy law.

The twenty-fifth anniversary of the founding of the College was signalized by the removal of the College to a larger building at 465 State street. Up to this time instruction had been given mainly by

means of lectures, laboratory work being entirely optional. Laboratory courses in pharmacy, chemistry, and vegetable histology were now made obligatory. A laboratory devoted entirely to prescription compounding was established in 1892.

The College was formally united with the University May 1, 1896, becoming the technical School of Pharmacy of the University of Illinois. In the management of the School, the trustees and officers have the assistance of an advisory board of pharmacists, elected by the registered pharmacists of the State through the Illinois Pharmaceutical Association.

# LOCATION

The School of Pharmacy occupies the four upper floors in a building located at Michigan Boulevard and Twelfth Street. The building is a substantial brick structure, five stories in height, with a frontage of fifty feet on Michigan Avenue and one hundred and seventy feet on Twelfth Street. There are large windows on four sides, giving the necessary light; the rooms are heated by steam throughout, and elevator service is provided.

The location is a good one, being near the center of the city and convenient to the various lines of transportation, yet removed from the noise and bustle of the business district.

A half block east of the building is the Illinois Central Depot; and one block west are the Cottage Grove Avenue, Indiana Avenue, and Twelfth Street surface lines, and the Twelfth Street Station of the South Side Elevated Railroad.

On Michigan Avenue, immediately south of the School, are to be found some of the best low-priced boarding and rooming places in the city. Satisfactory accommodations may be readily secured within a short distance of the School.

# EQUIPMENT

The east end of the building is occupied by lecture halls, of which there are three, arranged one above the other and having a seating capacity of from one hundred and fifty to three hundred persons.

The laboratories are six in number, including one each for qualitative analysis, quantitative analysis, special work in chemistry, microscopy, manufacturing pharmacy, and dispensing. The total capacity of these laboratories is sufficient for the accommodation of 348 students, working at one time.

There is a supply of compound microscopes, analytical balances, and special apparatus, and there are collections of crude drugs, medicinal plants, chemicals, and pharmaceutical products.

The library contains about two thousand volumes, including, in addition to the usual works of reference, many rare books. Complete files of the leading pharmaceutical journals are an important feature.

### COURSES OF INSTRUCTION

## FOR THE DEGREE OF GRADUATE IN PHARMACY

In the course leading to the degree of Graduate in Pharmacy the instruction is so arranged as to require the attendance of each student on three days each week and from twenty to twenty-one hours weekly during two annual sessions of thirty weeks each. This arrangement is advantageous to drug clerks who desire to spend a part of their time in drug stores while attending school, thereby adding to their practical experience and at the same time earning a part or all of their living expenses.

The subjects taught are chemistry, general, pharmaceutical, and analytical; pharmacy, theoretical, manufacturing, and dispensing; botany; physiology; and materia medica.

# FOR THE DEGREE OF PHARMACEUTICAL CHEMIST

To meet the demand for special training on the part of students who desire to pursue more extended courses in pharmaceutical chemistry, applied microscopy, and bacteriology, or to prepare themselves for positions under the Food and Drugs Act, this School offers a course leading to the degree of Pharmaceutical Chemist. It comprises two annual sessions of thirty-six weeks each, with instruction on five days each week, amounting to about thirty-three hours weekly, or a total of 2,300 hours in the entire course.

This course is partially concurrent with the shorter course and includes all the didactic instruction given in the latter. It consists largely of laboratory practice. In addition to the subjects above mention, it embraces organic analysis and proximate assays, new remedies, analysis of urine, food and sanitary analysis, bacteriology, and applied microscopy.

The system of teaching includes lectures, illustrations, demonstrations, recitations, written and oral examinations, and individual practice and personal instruction in the various laboratories, much time being devoted to this important part of the student's work.

### ADMISSION

The regular session opens September 19, 1911. The shorter course ends April 26, 1912; the longer course closes June 8, 1912.

Applicants for admission to the course leading to the degree of Pharmaceutical Chemist must be at least seventeen years of age and must be graduates of accredited high schools or furnish evidence of a preliminary education equivalent thereto.

Applicants for admission to the course leading to the degree of Graduate in Pharmacy must be at least seventeen years of age and must have completed one year of high school work or its full educational equivalent.

The entrance requirements of this school are those adopted by the American Conference of Pharmaceutical Faculties, of which this school is a member.

Students who have pursued courses of study in other colleges of pharmacy will be given credit for such portions of their work as are equivalent to the work required by this college.

### GRADUATION

In conformity with the usual custom of pharmaceutical schools, drug store experience is not made a requirement for the degree of Pharmaceutical Chemist. Students who have satisfactorily completed the course will be awarded the degree upon the recommendation of the Faculty.

For the degree of Graduate in Pharmacy this School has always required practical drug store experience. The actual time of attendance at the School, amounting to fourteen months, is credited as part of the four years of practical experience required for the degree. Candidates must have attained the age of twenty-one years and have satisfactorily finished the work leading to the degree. Students who have successfully met the scholarship requirement, but are lacking in age or in practical experience, will receive a certificate and will be awarded the diploma when the requirements of age and experience are satisfied.

Persons competent to fulfill the general requirements of admission to the University may be granted credits upon other University courses for equivalent work completed at the School of Pharmacy.

### STATE REGISTRATION

To become a registered pharmacist in Illinois, it is necessary to pass an examination before the State Board of Pharmacy, no diplomas being recognized. The diploma of this School is, however, accepted in lieu of examination for registration in about ten states and territories; and in several other states, including New York and Pennsylvania, where graduation prerequisite laws are in force, this School is among the schools recognized, and its diploma admits to the examination.

The amendments to the Illinois Pharmacy Law, in effect July 1, 1907, give credit, as a part of the "practical experience in compounding drugs" required by the law, for the actual time of attendance at a recognized school of pharmacy but not to exceed two years for registered pharmacist or one year for registered assistant pharmacist.

### FEES AND EXPENSES

For a statement of the fees see page 121. Fees are payable in advance. Students unable to meet this requirement must make satisfactory arrangements with the Actuary at the beginning of the course.

BOARD AND LODGING.—Good board and lodging, within a short distance of the College, can be had for from four to six dollars per week. This expense may be somewhat reduced by two or more students rooming together. The Actuary keeps a list of suitable boarding and rooming places, with their rates.

Selection of Seats.—Seats in the lecture halls and desks in the laboratories will be assigned to students by the Actuary, in the order of enrollment. To enroll, junior students will fill out the matriculation blank and forward it to the Actuary, together with credentials for admission and the matriculation fee of five dollars; senior students will make a payment on tuition account of five dollars. It is of advantage to students to matriculate early.

OPPORTUNITIES FOR EMPLOYMENT.—The Actuary keeps a register of students desiring employment and of pharmacists wishing to employ students. Students desiring employment are invited to correspond with him. There are among the one thousand drug stores of Chicago and its suburbs many model pharmacies where the student may obtain valuable experience.

### FURTHER INFORMATION

Further information may be found in the special announcement of this school, which may be obtained from the ACTUARY, SCHOOL OF PHARMACY, Michigan Avenue and Twelfth Street, Chicago, or the REGISTRAR, University of Illinois, Urbana.

# PART III DESCRIPTION OF COURSES



# DESCRIPTION OF COURSES

### EXPLANATION

The arrangement of subjects in the following Description of Courses is alphabetical. The connections of allied departments are indicated by cross references.

Following the description of each course of instruction will be found the requirements, if any, for admission to that particular course. The sequence indicated by these prerequisites must be followed. For instance, under Art and Design 5, Painting, there is a prerequisite of Art and Design, 1, 2, and 3. All these subjects must be carried before Course 5 may be taken.

If a course not required for graduation is selected by fewer than five students it may be withdrawn for the semester.

Graduate courses are numbered upward from 100.

Credit is reckoned in semester hours, or simply hours. An hour is either one class period a week for one semester, or the equivalent in laboratory, shop, or drawing room. Graduate work is not recorded in credit hours, nor do the credit hours of undergraduate courses apply to graduate students enrolled in them.

The semester, and the number of hours each semester for which the course counts, are shown after each course, thus: I, II; (2). The Roman figures indicate semesters, the Arabic numerals in parentheses indicate hours of credit for each semester for undergraduates.

### ACCOUNTANCY

# (See also Economics and Commercial Law.)

1. Principles of Accountancy.—The keeping of accounts of various kinds of business, merchantile, industrial, and financial; accounting for various types of business organization; methods of preparing the industrial and commercial statistics of a plant, for the purpose of making proper deductions as to the efficiency of departments; soundness of business policy. I, II; (2). (If elected, this course must be taken through the year.)

Prerequisite: Thirty hours of University work; registration in

Economics 1.

2. Cost Accounting.—The scope of cost accounting; the relationship of the various elements of cost to each other; methods of recording the same for various types of industries; designing and installing cost systems for typical industries. (May be taken with course 1.) II; (2).

Assistant Professor Duncan

Prerequisite: Accountancy 1.

[Not given in 1910-11.]

3. Industrial Accounting.—Types of industries; methods of installing accounting systems to suit their technical peculiarities, for the purpose of revealing efficiency in management; the handling of departmental accounts. (May be taken with course 1.) I; (2).

Assistant Professor Duncan

Prerequisite: Accountancy 1.

4. ADVANCED ACCOUNTING.—Theory: The handling of capital; revenue; dissolution of partnership; realization; liquidation; insolvency; good-will; treatment of bad debts; suspense; maintenance; depreciation; reserve; sinking funds; contingent funds; secret reserves.

Practical Accounting: Accounting problems; analysis of reports of railway, financial and industrial corporations. (This course, if elected, must be taken through the year.) I, II; (3).

Assistant Professor Duncan

Prerequisite: Accountancy 1; registration in the two-year or the four-year course in accountancy or railway traffic and accounting. The consent of the instructor, the director of the school, and the dean of the college.

AUDITING.—The duties and responsibilities of an auditor; kinds of audits; value of each; the auditor's report; what it should contain; his certificate; its value; the preparation of audit reports. (for students of accountancy only.) II; (2).

Assistant Professor Duncan

Prerequisite: Accountancy 4, or 1 and registration in 4.

6. Trustee and railroad Accounting.—The rights and duties of executors and trustees; proper accounting methods for each; railroad accounting; the handling of railroad revenue accounts; freight, passenger, express and other earnings from the road and allied companies; the treatment of operating expenses; fixed charges; the work of the Interstate Commerce Commission in standardizing railway accounting methods. (For students of accounting and railway traffic and accounting only.) I; (2).

Assistant Professor Duncan

Prerequisite: Accountancy 4, or 1 and registration in 4. [Not given in 1910-11.]

10. Shop Management and Cost Keeping.—Types of industries; how they influence plant layouts; the laborers needed; the materials used; the best types of records suitable for each kind of industry in order to approximate costs of manufacture and to determine and compare the efficiencies of departments, of individual workers, of methods of productions. The work is presented from the standpoint of the engineer and shop manager. II; (2).

Assistant Professor Duncan

Prerequisite: Open only to Engineering students who have had Economics 1 or 2.

# AGRICULTURAL EXTENSION

1. Principles and Methods of High School Agriculture.—
Features of agricultural science best adapted to high school conditions; the best order and methods for their presentation; suiting the course and instruction to the special interests and needs of each school community; what laboratory work shall be given; what apparatus may be used; what field experiments can be planned and executed. II; (5).

Mr. Barto

Prerequisite: Two years' work in agriculture.

2. ELEMENTARY AGRICULTURE.—The soil, its origin, nature, functions, properties, and classification; problems of temperature, aeration, control of moisture; enrichment and impoverishment of the soil; the plant, how it feeds and grows, its modes of reproduction;

factors in crop production; rotation; value and use of legumes; selection and testing of seed; their types and breeds; care and management; dairying; production of milk; testing and care of milk; farm plans; farm machinery; economics of agriculture. (For students preparing to teach in secondary schools; especially for teachers of science who have had no work in agriculture.) II; (5). Mr. Barto

3. FARMERS' INSTITUTE MANAGEMENT.—The farmers' institute as a factor in our system of public education; the organization and conduct of farmers' institutes and agricultural associations. Lectures; assigned readings. II; second half; (1).

Assistant Professor RANKIN

4. NATURE-STUDY AGRICULTURE.—Materials and methods suitable for the introduction of agriculture into the grades and the elementary schools in such a way as to lead to improved practice or to the study of professional agriculture in the higher schools. II; (5).

Assistant Professor Charles

### AGRICULTURE

(See AGRICULTURAL EXTENSION, AGRONOMY, ANIMAL HUSBANDRY, DAIRY HUSBANDRY, HORTICULTURE, THREMMATOLOGY, and VETERINARY SCIENCE.)

# AGRONOMY

1. Drainage.—Location of drains, leveling, digging, laying tile, filling and subsequent care; cost of construction and efficiency. Lectures; laboratory; field practice. I; first half; (2½).

Mr. WHITE

- 2. FIELD MACHINERY.—Simple machines, whiffletrees, ropes and chains. The construction, operation, adjustments and cost of plows, harrows, drills, mowers, binders, spreaders, wagons; practice in setting up and testing some of the most important field machines. Lectures; laboratory. (Alternating with M. E. 48 or 49 if desired.) I; (3).

  Mr. White, Mr. Dickerson
- 3. FARM POWER MACHINERY.—Pipes, belts, pulleys, gearwheels, and shafting,—kinds, uses, and costs; pipe-cutting; belt-splicing; babbitting; soldering. The gasoline engine, methods of ignition, including batteries, magnetos and dynamos, working principles, construction, operation, and adjustment. The horse as a motor. Windmills, hydraulic rams and pumps, steam engines and electric motors,—their construction, adaptability, durability, operation and cost. Various methods of applying power to field operations. Detailed

design for a farm power plant. Lectures; laboratory. (May alternate with Mechanical Engineering 48 or 49 if desired.) II; (3).

Mr. DICKERSON

- 4. FARM BUILDINGS.—Arrangement, design, construction and cost of farm buildings; machinery sheds; granaries; corn cribs; chicken houses; swine houses; barns; dwelling houses. Drafting of buildings; lectures; assigned readings. II; (5). Mr. Errlaw
- 5. Farm Seeds; Judging Corn and Other Grains.—Selection of the principal farm seeds for productiveness; market requirements and grades; grading and fanning as a means of improvement; shrinkage of grains; care of stored grain to prevent deterioration, injury, or loss; fungus diseases, such as smut of oats and wheat, and blight, scab, and rot of potatoes; methods of treatment for their prevention. Recitations; laboratory; field work. I; first half; (2½).

  Mr. Center, Mr. McDonald
- 6. FARM SEEDS; QUALITY, PRESERVATION, GERMINATION AND GROWTH.—Vitality of seeds under various conditions of storage; conditions of plant growth; peculiarities of agricultural plants in respect to structure, habits, and requirements for successful growth; enemies to plant growth; weeds and weed seeds, their identification and methods of combating; impurities of the smaller farm seeds,—alfalfa, clover, timothy, etc.; methods of seeding, amounts of seed used, and seed bed preparation; all general farm crops; grass; hay crops. Recitations; laboratory; field work. II; first half; or II; second half; (2½). Assistant Professor Hume, Mr. McDonald (Special students and those who have had no botany or agronomy

(Special students and those who have had no botany or agronom should arrange to take this course the first half of the semester.

7. FARM CROPS.—Origin, history, development and value of the common farm crops; their common botanical relations; structure and requirement of the seed for best development; methods of preparation of the seed bed, and seeding; cultivation; tillage and inter-tillage; harvesting; time of maturity for various uses; methods of harvesting; rotations, or succession of crops; systematic farming; distribution of labor; cost of production; consumption of products; residues; by-products; marketing the crop at various times; market conditions; losses in and cost of storage; the general utility of each crop; its place in a system of farming, or a rotation; special attention to Illinois conditions. Recitations; references; laboratory; field work. II; (5).

Assistant Professor Hume, Mr. Center

Prerequisite: Agronomy 6, or Botany 11 or 1, and one year's University work.

8. FIELD EXPERIMENTS.—Testing varieties of corn, oats, wheat, potatoes, and other farm crops; methods of planting corn, seeding grains, grasses, and other forage crops; culture of corn, potatoes and sugar beets; practice in treating oats and wheat for smut, and potatoes for seab, and studying the effect upon the crops; combating chinch bugs and other injurious insects. Other practical experiments may be arranged with the instructor. II, and summer vacation; (2½-5).

Assistant Professor Hume

Prerequisite: Agronomy 7, 12.

9. Soil Physics and Management.—Origin of soil material; methods of soil formation; mechanical composition and classification; soil moisture and means of conserving it; soil texture as affecting capillarity; osmosis, diffusion, temperature, aeration and as affected by plowing, harrowing, cultivating, rolling and eropping; wasting of soils by washing; fall or spring plowing and drainage as affecting moisture, temperature, and root development. The determination of real and apparent specific gravity, porosity, water holding capacity and capillary power of various soils; the physical effects of different systems of rotation and of continuous cropping with various crops and the mechanical analysis of soils. Lectures; laboratory. *I*; (5). Assistant Professor Mosier, Mr. Gustaffson

Prerequisite: Chemistry 1, or two credits in entrance physics; one year of University work.

10. Special Work in Soil Physics.—Physical properties of special soils; mechanical analysis of such soils by the centrifugal method; the field observation of the effects of discing, harrowing, and rolling; time and depth of cultivation; soil moisture and temperature; effects of washing of soils; methods of prevention. I or II; (2-5).

Assistant Professor Moster, Mr. Gustafson

Prerequisite: Agronomy 9.

11a. Soil Biology.—Activities of infusoria, fungi, algae, and bacteria in soils from the standpoint of soil fertility; fermentation of crop residues and green and farm manures and its effect upon insoluble plant food; fixation of atmospheric nitrogen, its transformations, use, and possible losses. II; (2).

Assistant Professor Pettit

Prerequisite: Agronomy 12; Botany 5.

11b. Soil Biology.—(Laboratory; supplementing course 11a.)

II; (1). Assistant Professor Pettit

Prerequisite: Agronomy 12; Botany 5.

12. Soil Fertility, Fertilizers, Rotations.—The influence of fertility, natural or supplied, upon the yield of various crops; effect of different crops upon the soil and upon succeeding crops; different rotations; ultimate effect of different systems of farming upon the fertility and productive capacity of soils; manures and fertilizers, their composition and their agricultural and commercial value; soils cropped continuously with different crops and with a series of crops; the fertility of soils of different types or classes from different sections of Illinois. Lectures; laboratory. II; (5).

Professor Hopkins, Mr. Eckhardt, Mr. Fisher, Mr. Grannis Prerequisite: Chemistry 13a; Agronomy 6, 9.

13. Investigation of the Fertility of Special Soils.—Soils in which the student is particularly interested. Determination of the nature and quantity of the elements of fertility; effect upon various crops of different fertilizers added to the soils, as determined by pot cultures, and by plot experiments; systematic study of similar work of experiment stations and experimenters. I, II; (2-5).

Professor Hopkins, Assistant Professor Pettit

Prerequisite: Agronomy 12.

15. FARM ORGANIZATION AND ADMINISTRATION.—The conditions and principles involved in the organization of the farm as a business; the character of its product; the amount and character of the land; proximity to market; sources of labor; kind and rotation of crops. Lectures. II; (1).

Professor MUMFORD

Prerequisite: Two years of University work.

16. GERMAN AGRICULTURAL READINGS.—The latest agricultural experiments and investigations published in the German language, with special attention to soils and crops. The current numbers of German journals of agricultural science used as texts. II; (2).

Professor Hopkins

Prerequisite: Two years' work in German; Agronomy 12.

17. FARM MACHINERY. — Expert work with binders, mowers, spreaders, hay rakes and hay loaders. (For students preparing to do expert work with these machines in the field.) II, second half; (2½).

Mr. WHITE

Prerequisite: One year of University work; Agronomy 2, 3a; M. E. 48.

18. INVESTIGATION AND THESIS .-- I, II; (5-10).

- 19. RESEARCH WORK IN FARM MECHANICS.—(Consult instructor regarding time and requirements.)
  - Mr. White, Mr. Ekblaw, Mr. Dickerson
- 20. Concrete Construction for Agricultural Purposes.—Materials used in concrete construction; methods of mixing and using; general specifications and estimates for walks, posts, tanks, floors, and foundations. *I, second half;* (1). Mr. Ekblaw
- 21. Minor Course in Farm Mechanics.—Field machinery, plows, harrows, drills, corn planters, mowers, binders, spreaders, their cost, operation, and adjustments; power machinery, windmills, hydraulic rams, animal motors, electricity, steam and gasoline engines, cost, efficiency, and operation; construction, cost, efficiency of tile and sewer drains; concrete construction, materials, mixing, and cost; specifications for walks, tanks, posts, floors, and foundations; farm buildings, construction, ventilation, lighting, heating, location and arrangement. Lectures; laboratory. II; (5). Mr. White

Prerequisite: Two years of University work or its equivalent.

22. PLANT BREEDING.—The improvement by breeding of field crops, including the grains, grasses, and legumes; the principles and methods of selection; results obtained by various investigators. Lectures; assigned readings; demonstrations; laboratory. II; (2).

Assistant Professor SMITH

Prerequisite: Botany 1; Chemistry 13a; Agronomy 5.

23. PLANT FOOD SUPPLIES.—The world's supply of plant food materials; methods of utilization and conservation. II; (1).

Assistant Professor Pettit

Prerequisite: Agronomy 12.

24. Soil Surveying and Mapping.—Soil types; the factors to be considered in establishing them; correlation; the history and methods of soil surveying and mapping; field practice in mapping. II; first half; (2½).

Assistant Professor Mosier, Mr. Gustafson

Prerequisite: Agronomy 9.

### COURSES FOR GRADUATES

- 101. Soil Investigation.—Systems of soil investigation; sources of error and methods of control; interpretation of results. Once a week; II. Professor Hopkins
- 103. Soil History.—Different systems of agricultural practice and their ultimate effect upon the soil. Once a week; II.

Professor Hopkins

109. EXPERIMENTS IN THE PRODUCTION OF FIELD CROPS.—Practice in planning and conducting field experiments.

Assistant Professor Hume

112. PLANT BREEDING.—A detailed study of experiments at this station; methods and results reported from other states and from foreign countries. Twice a week; I, II. Assistant Professor SMITH

Prerequisite: Botany 1; Chemistry 13a.

118. INVESTIGATION AND THESIS WORK. Professor HOPKINS and Assistant Professors Mosier, Smith, Pettit, Hume

### ANIMAL HUSBANDRY

1a. MUTTON AND WOOL PRODUCTION.—Market classes and grades of sheep and of wool; values as indicated by current market reports; methods of breeding and feeding sheep for the production of mutton and wool. Lectures; reference readings; judging. 1; first half; (2½).

Mr. COFFEY.

Prerequisite: Completion of or registration in courses 8 and 21

1b. Breeds of Sheep and Management.—History, development, and characteristics of breeds suitable for the production of mutton and wool; the breeding, care, and feeding of sheep for breeding and for show purposes. Lectures; reference readings; judging. I; second half;  $(2\frac{1}{2})$ . Mr. Coffey

Prerequisite: Animal Husbandry 1a, 8, 21.

2a. Swine Husbandry.—Market classes; prime heavy, butcher, packing, light hogs and pigs; the various grades of the same; market reports; practice in judging; breeds of swine, origin, development, and characteristics. Judging. II; first half. (2½.)

Assistant Professor DIETRICH

2b. Swine Husbandry.—Swine production from the standpoint of market requirements; economy of production; the breeding, housing, care, and feeding of swine for breeding and show purposes. II; second half; (2½).

Assistant Professor DIETRICH

Prerequisite: Animal Husbandry 2a, 8, 21.

4. Market Classes of Horses and Mules.—Draft horses, chunks, wagon, carriage, road, and saddle horses; mining, cotton, sugar, farm, and draft mules; conformation from the standpoint of market requirements. Judging; lectures; assigned readings. II; first half; (2½).

Mr. Edmonds

7. Principles of Animal Nutrition.—The income and expenditure of matter and of energy in the animal body; the principles governing body metabolism; the proper development of growing animals; maintenance of health and a high degree of efficiency in mature animals. I; first half; (2½).

Assistant Professor DIETRICH

Prerequisite: Chemistry 1, 2, 3, 13a; entrance Physics, or its equivalent; Animal Husbandry 21 or its equivalent; one year of

Botany or Zoology.

8. ELEMENTARY STOCK BREEDING.—The more common principles of animal breeding; range of variability; effects of selection. *I; first half; or I; second half;* (1).

Mr. Coffey

Prerequisite: Registration in course 21.

- 9. INVESTIGATION AND THESIS .-- I or II; (5-10).
- 10. Meat.—Market classes, grades, and cuts of beef, mutton, and pork; breeding and feeding as affecting the yield and quality of meat; farm and packing-house methods of slaughtering, handling, and curing meats; by-products and their bearing upon the cost of meat. II; first half; (2½). Assistant Professor Hall
- 11. Market Classes and Grades of Beef Cattle.—Grades of beef cattle, butcher stock, cutters and canners, stockers and feeders, and veal calves; beef type from the standpoint of the butcher, the feeder, and the breeder; value of each grade according to market reports. Judging; lectures; assigned readings. (Should be followed by course 13. I; second half; (2½).
- 12. Breeds of Beef Cattle.—History, development, and characteristics of the breeds suitable for beef production; tracing and critical study of pedigrees; breed types as exemplified in individual animals in the University and other herds. Lectures; assigned readings; judging. (For students expecting to own or manage pure-bred herds.) II: first half; (2½).

Prerequisite: Animal Husbandry 8, 11.

13. BEEF PRODUCTION.—Breeding beef cattle for market; combined beef and milk production; fattening steers; economic factors in cattle feeding; influence of age, grade, breed, condition, and sex; shelter, feed lots, and equipment; hogs and manure as by-products of beef production. Lectures; assigned readings; text-book. (A continuation of course 11.) II; first half; (2½). Mr. Rusk

Prerequisite: Animal Husbandry, 8, 11, 21.

14. Management of Pure-bred Herds, Flocks, and Studs.— Methods of successful breeders as to housing and management; selecting and fitting animals for sale and for the show ring; advertising and sale of surplus stock. Lectures; assigned readings. (For students expecting to own or manage registered live-stock.) II; sec-Various members of the department ond half; (21/2).

Prerequisite: Animal Husbandry 1, or 12, or 18.

- 15. DAIRY CATTLE .- (See Dairy Husbandry 2 and 17).
- 16. STABLE MANAGEMENT AND FEEDING OF HORSES .- Feeding and care of work horses and drivers at labor and at rest, and fattening horses for market; stables, stable fixtures, harness, vehicles, and other equipment, and their care. Lectures; assigned readings. II: second half: (11/4). Mr. Edmonds

Prerequisite: Animal Husbandry 21.

17. EDUCATION AND DRIVING OF THE HORSE.-The mental qualities, peculiarities, and limitations of the horse; the most successful methods of educating and training him for skillful work at labor or on the road; the rules and practices of correct driving; the responsibilities of the driver; courtesies of the public highway. Lectures; readings; practice. II; second half; (2). Mr. Edmonds

Prerequisite: Animal Husbandry 4; three semesters' work in the University or its equivalent.

[Only a limited number of students admitted to this course.]

18. Breeds of Horses.—History: development: characteristics: stud-book work; tracing pedigrees. Judging; lectures; assigned readings. I; first half; (21/2). Mr. Edmonds

Prerequisite: Animal Husbandry 4.

21. Elementary Stock Feeding .- Classification and composition of feeds; digestion, assimilation, and functions of food nutrients in the animal body; conditions affecting digestibility and feeding values of rations; feeding standards and calculation of balanced rations. Text-book; lectures. I; first half; or I; second half; (11/2).

Assistant Professor HALL

Prerequisite: Registration in course 8.

22. ADVANCED STOCK JUDGING .- Animal conformation with reference to market and show yard form, quality, and condition; the selection of horses, beef cattle, sheep, and swine, for feed lot, market, and exhibition; judging live stock shows. The course includes a tour of inspection of the Union Stock Yards and packing plants at Chicago and representative herds, flocks, and studs, in which all members of the class are expected to participate. II; daily; (3).

Various members of the department

Prerequisite: Animal Husbandry 1, 2, 4, 11; 10 or 12; three semesters' work in the University, or its equivalent.

24. MEAT.—Influence of type, condition, age, sex, and feeds upon the yield and market grade of meat products. II; (2½-5).

Assistant Professor Hall

Prerequisite: Animal Husbandry 1, 2, 10, 11, 12; three years' work in the University, or its equivalent.

25. Wool.—Influence of the factors affecting the quality, quantity, strength, and condition of wool. II; (2½-5). Mr. Coffey Prerequisite: Animal Husbandry 1a, 1b; three years' work in the University, or its equivalent.

26. SWINE.—Animal nutrition and the large and economical production of pork and the determination of type in swine. II; (2½-5).

Assistant Professor DIETRICH

Prerequisite: Animal Husbandry 2a, 2b; three years' work in the University, or its equivalent.

### COURSES FOR GRADUATES

103. LIVE STOCK EXPERIMENTATION. — Objects, methods, and sources of error in experimental work dealing with the feeding, breeding, and management of farm animals. Critical study of live stock experiments at this and other experiment stations.

Professor Mumford

110. Animal Nutrition.—The chemical and physiological changes, reactions, and processes involved in the activities of animal life, namely, mastication, digestion, absorption, assimilation, respiration, circulation, secretion, and reproduction. *I, II.* 

Professor GRINDLEY, Mr. EMMETT

- 111. Animal Nutrition.—Methods employed in the examination and analysis of feeding stuffs and animal substances, including flesh, fat, bone, urine, feees, and manufactured animal products. Classroom and laboratory. I, II. Professor Grindley, Mr. Gill
- 112. Bacteriology.—Microorganisms related to the animal body in health and disease; bacteriology of the digestive tract; bovine tuberculosis; infectious abortion of cattle. Dr. MacNeal
  - 113. Bacteriology of Animal Food Products. Dr. MacNeal
- 116. SEMINAR.—Reports and discussions of investigations in the fields of animal husbandry, such as feeding, breeding, and economic aspects of live stock production and the chemical, physiological, and bacteriological problems of animal nutrition. *I*, *II*.

Professor Mumford and other members of the department

## ARCHITECTURE

2. Wood Construction.—The growth, cutting, seasoning, working, and finishing of woods; structural and decorative properties illustrated by mounted specimens and sections; use of wood in buildings developed by detailing at a large scale floors, walls, roofs, doors, windows, cornices, stairs, wainscoting, cabinet-work, and internal finish; detail sketches of similar work in process of actual construction. Kidder's Building Construction, Part Two. I; (3).

Mr. Weaver

Prerequisite: General Engineering Drawing 1, 2; Mathematics 2, 4.

3. MASONRY AND METAL CONSTRUCTION.—Foundations of stone, brick, concrete, and piles; materials employed in stone masonry, their uses, defects, qualities, and modes of preparation; kinds of masonry and external finish; tools for stone cutting and their use; brick masonry, its materials and bonds; terra cotta design, manufacture, and use; manufacture and refining of cast iron, wrought iron, and steel, with processes of pattern-making, molding, casting, refining, rolling; standard dimensions or sections; special properties and value of metal in a structure; the detailing of a line of columns, beams, girders, and footings; joints and connections. Kidder's Building Construction and Superintendence, Part One. II; (3). Mr. Weaver

Prerequisite: General Engineering Drawing 1, 2; Mathematics 2, 4.

4. Santary Construction.—Plumbing, trap ventilation, removal of wastes, construction of water closets, drains, and systems of water supply; sewage disposal; water supply and fixtures in dwellings. Recitations; lectures; designs; special problems. Cosgrove's Principles and Practice of Plumbing. I; (2).

Mr. Clark

Prerequisite: Physics 2a, 2b; Architecture 2, 3.

5. Graphic Statics and Roofs.—Elements of graphic statics and applications in designing trussed roofs; forces, equilibrium, reaction, moments, bending moments, and shears on beams; center of gravity, moment of inertia, and kern of cross sections; construction of wooden and metallic roofs, drawing strain diagrams, and determining sectional dimensions of members, with the designing of joint connections. Ricker's Notes on Graphic Statics. 11; (4).

Mr. CLARK

Prerequisite: Mathematics 2, 4; Theoretical and Applied Mechanics 12, 5, or 6, 7, 8, 9.

6. HISTORY OF ARCHITECTURE.—The more important styles from the Egyptian to the modern; examination of historical conditions, local and inherited influences, structural materials and system, ornaments, purposes, and designs of the buildings with the most important typical examples of each style; the evolution of architectural forms. One quiz and three illustrated lectures a week. Tracing of details, chronological lists, synopses of styles, and lecture notes. Fletcher's History of Architecture, 5th Ed. I. II; (4).

Professor RICKER

Prerequisite: General Engineering Drawing 1, 2; Architecture 2, 3, 8; to be taken with Architecture 7 and 11.

7. HISTORIC ORNAMENT.—Motives, impulses, and environment as affecting the development of style in ornamentation during the great historic periods. First semester: Lectures; exercises in drawing and modeling representative decorative forms. Second semester: Analysis and composition of colored ornamentation. I, II; (2).

Professor Wells

Prerequisite: Architecture 2, 3, 8, 20; registration in Architecture 6, 11.

8. Architectural Drawing.—The principles of architectural drawing, including free-hand perspective, shades and shadows as applied in architecture, and the relations of plans, elevations, and sections to one another. II; (3).

Mr. FORSYPHE

Prerequisite: General Engineering Drawing 1; Architecture 20.

9. Monthly Problems.—Eight hour sketch problems one day each month during the second, third, and fourth years. The program is made known at the beginning of the exercise, and sketches are completed and rendered during the same day. Credit given at the completion of each year. I, II; first Saturday in each month, all day; (½ for each semester.)

Assistant Professor Varon, Mr. Jones, Mr. Forsythe Prerequisite: General Engineering Drawing 1, 2; Architecture 8.

10. Working Drawings.—Conventional methods for representing the different parts of buildings in general and in detail; conventional colors and sectioning; systems of lettering and figuring drawings; working drawings; tracing of drawings, reproduction,  $H_i$ ; (2).

Mr. CLARK

Prerequisite: Architecture 2, 3, except for students in ceramics.

11. Architectural Seminar.—Assigned topics in History of Architecture; reviews of books; abstracts of current technical journals and other publications. I, II; (1). Professor RICKER

Prerequisite: Registration in Architecture 6.

12. Superintendence and Business Relations.—The relation of the architect to the owner and the builder; duties of the superintendent; methods of supervising work; accounts; methods of measuring and estimating the approximate cost of material and labor; specification writing. Clark's Architect, Owner, and Builder before the Law; Richey's Handbook for Superintendents.

Professor Mann

Prerequisite: Architecture 2, 3, 4, 10.

13. Heating and Ventilation.—Scientific theory and practice of warming and ventilating buildings; fuels and production of heat; flow of gases through ajutages and pipes; calculations of dimensions of air ducts and chimneys; systems of heating: furnaces, hot water, steam; sources of impurity in the air and requirements of good ventilation; methods of ventilation by aspiration, by fans; fans of different types. Problems; design of heating plants. Hoffman's Heating & Ventilation. 1, II; (3).

Prerequisite: Architecture 2, 3, 4, 10, 15; Physics 2a, 2b, 1, 3.

14. Architectural Perspective.—Theory of perspective; laborsaving methods; free-hand perspective; problems in angular, parallel, vertical, and curvilinear perspective, as well as in perspective shades and shadows. Ware's Modern Perspective. I; (2). Mr. Clark.

Prerequisite: General Engineering Drawing 1, 2.

REQUIREMENTS OF BUILDINGS.—II; (3).
 Professor Varon, Mr. Clark

Prerequisite: General Engineering Drawing 1, 2; Architecture 2.

- 16. RESIDENCE DESIGN.—The design of dwellings. (Included in general design problems.) II; (2).

  Assistant Professor Varon Prerequisite: Architecture 2. 3. 8.
- 17. Advanced Design.—Advanced problems in original design. I; (3). Assistant Professor Varon

Prerequisite: Architecture 6, 7, 8, 9, 11, 18, 20, 22.

18. ELEMENTARY DESIGN.—The elements and theory of architecture, and their application. Lectures and problems. I, II; (3).

Professor Mann

Assistant Professor Varon, Mr. Forsythe, Mr. Jones Prerequisite: Architecture 8, 9, 20.

19. ARCHITECTURAL ENGINEERING.—Graphic statics applied to the analysis of metallic roofs of wide span, roof trusses of curved or unusual form and those supported by abutments and jointed, spherical and conical trussed domes, the stone arch, vault, and dome, and of the Gothic system of vaults and buttresses; the strength of walls, dams, retaining walls, and large chimneys; the effect of moving loads on girders; construction and details of steel skeleton buildings. Problems in design for specified cases. Tucker's Steel Construction; Ricker's Notes on Architectural Engineering, I. II; (3). Professor White.

Prerequisite: Mathematics 2, 4, 6, 7, 9; Theoretical and Applied Mechanics 6, 7, 8, 9; Architecture 2, 3, 5.

- 20. FREE-HAND DRAWING .- Any courses offered in Art and Design amounting to three semester hours. Arrange hours. I, II; (3). Assistant Professor Lake
- Assistant Professor VARON, Mr. JONES 22. Design.—I; (3). Prerequisite: Architecture 8, 9, 11, 18; registration in Architecture 6, 11.
  - 23. Design.—II: (3). Assistant Professor Varon, Mr. Jones Prerequisite: Architecture 18, 22. Taken with Architecture 6, 11.
  - 24. ADVANCED DESIGN.—Problems in advanced design. I; (3). Assistant Professor VARON

Prerequisite: Architecture 18, 22, 23.

27. Domestic Architecture.—Given in connection with courses in Household Science 2 and 3.

Professors Ricker and White, Mr. Clark, Mr. Weaver

28. Interior Decoration.—Problems in the decoration of the interiors of modern public and private buildings; floor and ceiling plans; sections, elevations of walls, and internal perspectives, with enlarged details of the important parts; the uses of materials: wood, plaster, stucco, tiles, marbles, mosaics, metals, carvings, inlays, glass, gilding; the preparation of color schemes. I, II; (3).

Professor Wells

Prerequisite: Architecture 6, 7, 8, 9, 11, 14, 18, 20, 22, 23.

29. HISTORY OF THE FINE ARTS.—Painting, sculpture, and architecture in their allied and synchronous development. The object of this course is a familiar knowledge and appreciation of the fine arts. Lectures; collateral reading; brief weekly and extended semester reports. The College Histories of Art by Hamlin, Van Dyke, Marquand. I, II; (3). Professor Ricker, Professor Wells

Prerequisite: Freshman year in any college of the University.

- 30. Thesis.—The working out of an extended problem in design or construction. First semester: preliminary work; second semester: prescribed hours, meeting part of the thesis requirement. I, II.
  - Professors Mann, White, Wells, Assistant Professor Varon
- 31. ARCHITECTURAL READINGS.—French: LaLoux's Architecture Greeque; Palustre's Architecture de la Renaissance. German: Nohl's Tagebuch einer Italienischen Reise. Other selections. (To give a knowledge of French or German architectural terms to students who elected either of these languages in the freshman year; those who elected English take Architecture 29 in lieu of this course.) I, II; (1).

  Professor RICKER

Prercquisite: Architecture 6; French or German, one year.

- 32. Water Color Drawing.—Sketching architectural and still life subjects in water color.  $II_j$  (1). Professor Wells
- 34. Architectural Engineering Seminar.—Reports on and discussions of current literature germane to architectural construction. I; (1).

  Professor White

Prerequisite: Architecture 2, 3, 4; Theoretical and Applied Mechanics 6, 7, 8, 9, 10; registration in Architecture 19.

- 36. Bases of Decorative Design.—The geometrical principles in decorative composition; use of elements taken from landscapes, from plant and animal life. I, II; (2). Professor Wells Prerequisite: Architecture 20; Art and Design 3.
- 38. Architectural Laboratory.—Work in the various architectural arts executed by the student from his original designs. *I, II;* (3).

  Professor Wells

Prerequisite: Art and Design 1, 3; Architecture 7, 36.

41. ESTHETICS OF FORM AND COLOR.—The principles that underlie pleasing combinations of form and color. Lectures; preparation of diagrams in color, illustrating color harmony. *I*; (2).

Professor Wells

Prerequisite: Freshman year in any college of the University.

### COURSES FOR GRADUATES

SEMI-WEEKLY CONFERENCES AND ADDITIONAL INSTRUCTION AS MAY BE REQUIRED

101. ARCHITECTURAL CONSTRUCTION.—Large buildings constructed of wood, masonry, steel frame and tiles, or of reinforced concrete. I or II. Arrange hours. Professors Mann, Ricker, White

102. Sanitation of Buildings.—The planning of sanitation, warming and ventilation, acoustics, and electric lighting for buildings of importance. I or II. Arrange hours.

Professors RICKER and WHITE, Associate CLARK

103. ADVANCED ARCHITECTURAL GRAPHICS.—Advanced work in graphic statics, stereotomy, perspective, water color, and free-hand drawing. I or II. Arrange hours.

Professors Mann and Wells, Associate Clark, Mr. Weaver

104. ARCHITECTURAL DESIGN.—Advanced architectural design. I or II. Arrange hours.

Professor Mann, Assistant Professor Varon

105. ARCHITECTURAL PRACTICE.—The translation of an approved architectural book; indexing and classification of data; specifications and estimates of cost for large buildings; office methods and systems. I or II. Arrange hours.

Professors Mann, Ricker, and White

# ART AND DESIGN

1. Free-Hand Drawing.—The principles of perspective; practice in drawing. I; (2 or 3); II; (3).

Assistant Professor LAKE, Mr. KELLEY, Miss DAY

2. Light and Shade.—Shaded drawing in monochrome. I, II; (2). Mr. Kelley

Prerequisite: Art and Design 1.

3. Antique Drawing.—Practice in drawing; study of artistic anatomy. I, II; (3).

Miss Wetmore

Prerequisite: Art and Design 1.

4. Water Color Painting.—Still-life; flowers; landscapes. I, II, (3). Miss Day

Prerequisite: Art and Design 1, 2.

OIL PAINTING.—Figure and portrait in costume. I, II; (3).
 Miss Wetmore

Prerequisite: Art and Design 1, 2, 3.

OIL PAINTING.—Still-life; flowers; landscape. I, II; (3).
 Miss Wetmore

Prerequisite: Art and Design 1, 2.

8. Modeling.—Antique and figure; plaster casting. I, II; (2).

Assistant Professor Lake

Prerequisite: Art and Design 1, 3.

Sa. Modeling .- Architectural. I; (2)

Assistant Professor Lake

Prerequisite: Art and Design 1.

10. Sketching in Monochrome.—General practice in pen and pencil. II; (1).

Assistant Professor Lake

Prerequisite: Art and Design 1.

12. DESIGN.—Theory and practice. I, II; (3). Mr. KELLEY Prerequisite: Art and Design 1.

19. HISTORY OF THE FINE ARTS.—Elementary. I; (3).

Assistant Professor Lake

20. Teachers' Course.—Secondary school art work, with practice. I, II; (2). Miss Day

Prerequisite: Art and Design 1, 2, 4.

### ASTRONOMY

Instruction in astronomy is arranged both for general students and for those who desire to take up the science from its technical side. Advanced students are given every opportunity to become familiar with the use of modern astronomical instruments. The equipment of the department is contained in the Astronomical Observatory, a brick building the dimensions of which are 75 by 55 feet. The principal instruments are a 12-inch refracting telescope by Warner and Swazey, and Brashear, and a 3-inch transit and zenith telescope. There are also two smaller equatorials, two Riefler clocks and a considerable amount of minor apparatus such as chronometers, transits, sextants, spectroscope, photometer, photographic outfit, and calculating machines. The astronomical library comprises about 1,200 volumes, and includes all of the important astronomical periodicals.

Students without mathematical training may elect course 1. Course 4 is for beginners, but requires a knowledge of trigonometry. Other courses should be taken in the following order: 3, 6, 15, 14, 7.

### COURSES FOR UNDERGRADUATES

- 1. Elementary Astronomy.—Lectures; recitations; one evening a week at the observatory. (For beginners; mathematics not required.) I; (3). Assistant Professor Stebbins, Dr. Reed
- 3. General Astronomy for Engineers.—Descriptive astronomy; required with course 6. II; (3). Assistant Professor Stebbins Prerequisite: Mathematics 7 or 8a.

4. General Astronomy.—Lectures; recitations; two evenings a week at the observatory. II; (5).

Dr. Reed

Prerequisite: Mathematics 4.

6. Practical Astronomy.—Rough and accurate determinations of latitude, azimuth, and time, especially with the ordinary surveyor's transit; the art of computing. II; (2).

Assistant Professor Stebbins

Prerequisite: Mathematics 7 or 8a.

### FOR ADVANCED UNDERGRADUATES AND GRADUATES

7. THEORETICAL ASTRONOMY. — Celestial mechanics; theory of orbits; perturbations; canonical transformations. I, II; (3).

Dr. Reed

Prerequisite: Mathematics 8a or 7 and 9.

9. Celestial Mechanics.—Properties of canonical systems of differential equations; integration by series; periodic and asymptotic solutions; integral invariants. *I*, *II*; (3).

Dr. Reed

Prerequisite: Mathematics 16; Astronomy 7.

14. Observational Astronomy.—The working methods of an astronomical observatory; individual problems. II; (3).

Assistant Professor Stebbins

Prerequisite: Astronomy 15.

15. Geodetic Astronomy.—The sextant, transit, and zenith telescope; methods similar to those of the United States Coast Survey.

I; (3). Assistant Professor Steebins

Prerequisite: Mathematics 7 or 8a.

### COURSE FOR GRADUATES

101. SEMINAR AND THESIS.—I, II; (3).

Assistant Professor Stebbins

### BACTERIOLOGY

(See BOTANY 5, 6, 8, 12, 103, 104, 105.)

### BANKING

(See Economics.)

### BIOLOGY

(See BOTANY, ENTOMOLOGY, PHYSIOLOGY, and ZOOLOGY.)

### BOTANY

Courses numbered 1 to 20 inclusive are primarily for undergraduates; those numbered 101 to 107 inclusive are for graduates only. The undergraduate work may be roughly classified in four somewhat distinctive lines, viz: 1, anatomy and physiology (courses 1, 3, 7, 9, 14); 2, morphology and taxonomy (courses 2, 4, 13, 16); 3, ecology (courses 17, 18, 19, 20); 4, bacteriology (courses 5, 6, 8, 12). Course 11 is an elementary one and 15 is for prospective teachers. Courses 1, 2, and 4 form together a general introduction to the science and may be elected by those who propose to go no farther or with equal propriety by those who are to pursue subsequently the more specialized work.

 HISTOLOGY AND PHYSIOLOGY. — The tissues and organs of plants; the phenomena of nutrition, growth, and irritability; II; (5).
 Assistant Professor Hottes, Mr. Lehenbauer, Miss Baldwin, Mr. Whitten. Miss Akin

Prerequisite: Entrance credit in botany, or Botany 11: Chemistry 1 or Physics 2a.

2. Morphology.—Morphology and taxonomy of plants from the standpoint of evolution; selected types. Occasional field excursions. *I*; (5). Miss Hague

Prerequisite: Entrance credit in botany, or Botany 11.

3. Cytology and Physiology.—First semester: Cytology and histology, with special attention to technique. Second semester: Influences of external stimuli on growth and movement. Lectures; laboratory; assigned reading. (Extends through the year, but the work of each semester is credited separately as 3a and 3b.) I, II; (5).

Assistant Professor Hottes, Miss Akin

Assistant Professor Hottes, Miss

Prerequisite: Botany 1.

4. TAXONOMY OF SPERMATOPHYTES.—Identification and classification of flowering plants. Lectures; assigned reading; laboratory; field excursions. 1; (5). Professor Burrill

Prerequisite: Entrance credit in botany, or Botany 11.

5. Bacteriology. — General principles; methods of procedure; selected forms. Lectures; recitations; laboratory work. *I, or II;* (5). (Course given in the first semester is repeated in the second.)

Professor Burrill, Assistant Professor MacNeal, Mr. Briscoe, Miss Latzer

Prerequisite: Chemistry 1; one year's University work, including one semester in botany or zoology.

6. Bacteriology for Sanitary Engineers.—Bacteriological methods; water analysis and sewage. I, last seven weeks; (2).

Mr. Briscoe, Miss Latzer

7. PLANT PATHOLOGY.—The principal groups of parasitic fungi and plant diseases due to them; methods of investigation and control. I, II; (5).

Dr. BARRETT

Prerequisite: Botany 1, 2, 4.

- 8. Bacteriology. Selected species of bacteria; investigations upon assigned subjects. *I or II*; (2-5). Professor Burrill *Prerequisite*: Botany 5.
- 9. CYTOLOGY AND PHYSIOLOGY, ADVANCED COURSE.—Special laboratory problems in cytology and physiology. Critical discussions of current literature; reports on research work. I, II; (2-5).

Assistant Professor Hottes

Prerequisite: Two years' work in botany, including Botany 3.

- 10. SEMINAR.—Reports and discussions upon assigned topics and results of research work. (For advanced and graduate students.)

  I, II; (1).

  Professor Burrill
- 11. Introductory Course.—Flowering plants, their structure and activities. Laboratory; field observations; text. I; (5).

Assistant Professor Hottes, Mr. Lehenbauer, Miss Baldwin, Mr. Whitten, Miss Akin, Miss Parr

\*12. Lectures and Demonstrations upon Bacteria.—The existence, size, form, life processes, and effects of bacteria and allied organisms, with special attention to those of economic importance, or of most common utility or detriment to man. I, second half; (1).

Professor Burrill

13. FORESTRY.—Forest trees and their collective influences; the principles and practice of forestry; forestry legislation and economics. (The same as Horticulture 9.) II; (2). Professor Burrill

Prerequisite: Botany 4 or 11.

14. HEREDITY AND ORIGIN OF SPECIES.—The plant cell; the physiology of its different constituents and the parts these play in the process of fertilization; various theories of heredity and of species formation. I; (2).

Assistant Professor Hottes

Prerequisite: One year's work in the University; one semester in botany or zoology.

<sup>\*</sup>This course may not be counted for the degree of A. B. in the College of Literature and Arts.

15. TEACHERS' COURSE.—The teaching of botany in secondary schools; methods of instruction; laboratory equipment and material helps; pertinent literature; the teacher's preparation and duties. II; (1). Professor BURRILL, Assistant Professor HOTTES

Prerequisite: One year of botanical work in the University or the

equivalent.

16. TAXONOMY OF SPECIAL GROUPS.—Laboratory and herbarium work; assigned reading. (The course extends through the year, but the work of each semester is credited separately as 16a and 16b.) I, II; (5).

Prerequisite: Botany 4.

 Ecology.—Ecological factors which control the distribution of plants; principles of plant association; characteristics of some typical plant formations. Lectures; field work on Saturday forenoons. II; (3).

Prerequisite: Entrance credit in botany, or Botany 11.

[Not given in 1910-1911.]

18. Ecology.—Field and laboratory studies of selected areas; assigned reading; lectures. (The field work must be done wholly or in part during the preceding summer on an area approved by the instructor.) I, II; (2-5).

Prerequisite: Botany 4 and 17.

[Not given in 1910-1911.]

19. SEMINAR IN ECOLOGY.—Reports and critical discussions of current literature and research work. I, II; (1).

Prerequisite: Experience in ecological field work.

[Not given in 1910-1911.]

20. ECOLOGY AND TAXONOMY. — Individual problems, dealing mainly with the plants of Illinois and vicinity. *I, II;* (2-5).

Prerequisite: Botany 18 or 16, as problems require.

[Not given in 1910-1911.]

### COURSES FOR GRADUATES

After at least one year of approved botanical work graduates may elect any of the courses 3, 5, 7, 8, 9, 10, 18, 19, or 20 for minor credit and any of the courses 3, 7, 8, 9, or 18 and 19 together, with assigned additions for major credit towards an advanced degree.

The following are open only to graduates of liberal botanical training and may, upon approval, be elected for minor or major work.

- 101. CYTOLOGY.—The influence of external agents on the cell; special subjects for investigation. Reports; discussions of current literature and research results. I, II. Assistant Professor HOTTES
- 102. Physiology.—The effects of external stimuli on growth and movement; special subjects for investigation; reports; discussions of current literature and research results. *I. II*.

Assistant Professor Hottes

- 103. Bacteriology.—Morphologic and physiologic variation due to treatment; the number, validity, and relationship of species; special saprophytic or parasitic bacteria; methods of favoring or combating their activities. *I, II*. Professor Burrill.
- 104. Bacteriology.—Special methods, to develop technical skill for research upon pathogenic bacteria. (The same as Animal Husbandry 113.) II. Dr. MacNeal
- 105. Bacteriology.—Micro-organisms related to the animal body in health and disease. (The same as Animal Husbandry 114.) I, II.

  Dr. MacNeal
- 106. VEGETABLE PATHOLOGY. Diseases of plants and disease agents; special subjects. I. II. Professor BURRILL, Dr. BARRETT

### CERAMICS

The courses offered by the department of ceramics are designed to give a technical knowledge of the composition and properties of raw materials used in the manufacture of clay wares, cements, and glasses, and of the physical and chemical changes which they undergo during manufacture; manual skill in the manipulation of these materials; and such knowledge of machines and the applications of power as will enable the student to acquire familiarity with the construction and operation of a manufacturing plant; to understand the peculiarities of the materials with which he is to deal; and to install such machinery and introduce such methods of manufacture as will improve the quality and reduce the cost of the wares.

For the more technical work the department occupies a new building especially designed for its needs. The lecture rooms, laboratories, kiln-house, drawing rooms, and library are well equipped.

The relations of the department with the clay working interests of the State are such that investigation is as much a part of its work as is instruction. Consequently, studies of both a purely scientific and a practical nature are continually in progress. Advanced students are permitted to take part in those investigations under the direction of the instructors. Seniors and graduate students are expected to conduct investigations of their own in some line of work in which they are especially interested. (For outline of courses see page 159.)

1. CLASSIFICATION AND PHYSICAL TESTING OF CLAYS.—The properties of clays and other ceramic materials; the identification of the varieties met in practical work. Lectures; laboratory. II; (3).

Professor Bleininger

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Prerequisite: Chemistry 2, 3.

WINNING AND PREPARATION OF CLAYS.—Commercial methods.
 I; (3).

Mr. STULL

Prerequisite: Chemistry 5b.

3. Industrial Calculations.—The designing and operation of furnaces, kilns, and dryers; temperature measurement.  $I_j$ : (2).

Mr. Montgomery

Prerequisite: Mathematics 8; Chemistry 5b; Physics 1 and 3.

 Drying and Burning.—Methods of drying and burning clay wares; types of construction of industrial kiln plants; chemical and physical processes involved. I; (4).

Professor Bleininger

Prerequisite: Ceramics 5.

5. Body Making.—Composition of all classes of ceramic wares; physical and chemical changes produced by the blending of the various ceramic materials; machinery and processes employed in shaping the various products. Lectures; laboratory. II; (5).

Professor Bleininger

Prerequisite: Ceramics 3; registration in Ceramics 7.

6. GLAZES.—The production of glazes and enamels; classification; properties and defects common to each class; the effect of variation in composition; modes of application. Lectures; laboratory. I; (5).

Mr. STULL, Mr. MONTGOMERY

Prerequisite: Ceramics 4, 5, and 7.

7. CERAMIC STOICHIOMETRY.—Calculation relating to the manufacture of bodies and glazes. II; (2). Mr. MONTGOMERY

Prerequisite: Ceramics 3.

8. PRINCIPLES OF GLASS MANUFACTURE.—The raw materials, preparation, compounding, melting, and shaping of glass; chemical principles involved in the manufacture and decoration of the different types of vitreous silicates. Lectures. II; (3). Mr. STULL

Prerequisite: Ceramics 7.

9. Ceramic Construction.—Plans, specifications, and estimates of ceramic construction. II; (5). Mr. Stull

Prerequisite: G. E. D. 2; Ceramics 3.

10. CEMENTS.—Limes, cements, plaster, sand-lime stone, and other cementing materials; composition; reactions; methods of manufacture and testing. Lectures. *I*; (3). Professor Bleininger

Prerequisite: Ceramics 7.

- 11. Thesis.—II; (5). Professor Bleininger, Mr. Stull
- 12. Designing and Shaping from the standpoint of the manufacturer; die construction; laying out of work; templates; master and working molds; pressing; casting; jiggering. II; (3).

  Mr. Stull

Prerequisite: Ceramics 1 or 2.

13. CEMENT LABORATORY.— The preparation of cementing substances; properties; typical reactions involved in the manufacture and use of lime, lime-sand products, pozzuolane, Sorel cement, natural and Portland cement; the behavior of the hardened products under the influence of the various agencies to which they are subjected in use.

I; (3). Professor BLEININGER, Mr. MONTGOMERY

Prerequisite: Ceramics 10.

14. CONTINUATION OF COURSE 13.—The production of water proof and sea water resisting cements; cement colloids; polychrome pigments for fresco decoration; cement colors; cold water paints. II; (3).

Mr. Stull

Prerequisite: Ceramics 13.

15. The Preparation of Glass Silicates,—Soda-lime; potashlime; lead, barium, and zinc silicates; boro silicates; properties of the fused and solidified glasses; practical problems of the glass industry. *I*; (3).

Professor Bleininger

Prerequisite: Ceramics 8.

16. CONTINUATION OF COURSE 15.—Opaque, colored and optical glasses; the enameling of metals; cast iron; sheet iron; copper. II; (3). Professor Bleininger, Mr. Stull

Prerequisite: Ceramics 15.

Courses open to graduates of courses other than ceramics to be taken as minors: Ceramics 14, 5, 6, 7, 8, 10.

## COURSES FOR GRADUATES

101. The Formation of Silicates, involving the conceptions of physical chemistry. Lectures; laboratory. (For graduates of this and

other ceramic schools and for industrial chemists). Five times a week; I.

Professor Bleininger

102. THE TECHNOLOGY OF THE CLAY INDUSTRIES.—Mineralogical constitution of clays; plasticity and the colloidal state; adsorption: pyro-chemical and physical changes; exothermic and endothermic processes; the crystalline and amorphous state of burnt clay; thermal expansion of bodies and glazes; bodies and their interaction with glazes; the composition and constitution of glazes; dissolved and underglaze colors; translucency and opacity; the colors of rare oxides in glazes; eutectic studies; reduction and oxidation phenomena; heat radiation; conduction. Five times a week; I, II.

Professor Bleininger, Mr. Stull

103. THE TECHNOLOGY OF THE CEMENT AND MORTAR INDUSTRIES.

—Fusion curves of lime-iron; lime-alumina and lime iron-alumina silicates; the action of catalyzers; crystallization of basic silicates; constitution of cement compounds; hydration and dehydration; thermal studies; colloids of hydration products; white hydraulic cements; the factor of fineness of grain; pyro-chemical changes. Five times a treek; I, II.

Professor Bleininger

104. The Technology of Glass.—Fushion curves of glassy silicates; limiting compositions; solubility of the oxides in glasses; devitrification; annealing; optical properties; solubility of glass; viscosity; thermal expansion; pyro-chemical volume changes; reaction of coloring oxides; cooling curves; flashing; interaction between metal surfaces and glasses; oxidation and reduction. Five times a week; I, II.

Professor Bleiningen

### CHEMISTRY

The Department of Chemistry is organized under nine divisions as follows:

Elementary and Inorganic Chemistry

Qualitative Analysis

Quantitative Analysis, including Agricultural and Food Analysis

Organic Chemistry

Physiological Chemistry

Animal Nutrition

Physical Chemistry and Electrochemistry

Industrial Chemistry, including Metallurgy, Gas Analysis, and Assaying

Water Analysis

Each of these divisions is equipped with rooms and apparatus for elementary, advanced, and graduate work. The nature of the work is apparent from an examination of the courses described below.

Students taking chemistry at the University are advised to give at least one year to the subject and this should include Chemistry 1 or 1a, 2 and 3. Those continuing in the second year should take Chemistry 5a and 5b, 5e or 13a. In the third year Chemistry 14 and 9, 9a, 9b, or 9c, 31 and 33 should be taken. With these, more special courses may be taken if desired, but, in general, students are not advised to take the special courses unless they have had the fundamental work represented by the selection given above. Students who desire a training for professional work in chemistry, either as teachers or in its industrial applications, will naturally take the chemical course or the course in chemical engineering.

Students who find it impossible to take more than one semester's work are requested to register for Chemistry 1 or 1a in the second semester rather than in the first.

1. Inorganic Chemistry.—The non-metallic elements. Alexander Smith's General Inorganic Chemistry. I or II; (5).

Professor Noves, Assistant Professor Balke, Dr. Smith, Dr. Isham, Dr. McCarthy

1a. INORGANIC CHEMISTRY.—Lectures; recitations; laboratory. I or II; (4).

Professor Noyes, Assistant Professor Balke, Dr. Smith, Dr. Isham.

Prerequisite: One year of entrance chemistry.

1b. Inorganic Chemistry.—Inorganic chemistry. Lectures; recitations; laboratory. (For students in engineering.) *I* or *II*; (4). Professor Noves, Assistant Professor Balke, Dr. Smith, Dr. Isham, Dr. McCarthy.

2. INORGANIC CHEMISTRY.—A continuation of Chemistry 1. The metallic elements; their classification, compounds, and chemical properties. Lectures; assigned text. Alexander Smith's General Inorganic Chemistry. II; (2).

Professor Noyes, Assistant Professor Balke, Dr. Isham, Dr. McCarthy

Prerequisite: Chemistry 1; registration in Chemistry 3.

3. QUALITATIVE ANALYSIS.—Recitations; laboratory. *I* or *II*; (3). Dr. Smith, Dr. Isham, Dr. McCarthy *Prerequisite*: Chemistry 1; registration in Chemistry 2.

5a. Elementary Quantitative Analysis.—Gravimetric and volumetric analysis; stoichiometrical relations and the application of the fundamental laws of chemistry to quantitative analysis. Lectures; recitations; laboratory. (Medical students are given special problems in the latter part of the course.)  $I_{j}$  (5).

Professor Bartow, Dr. Burgess

Prerequisite: Chemistry 2, 3.

5b. QUANTITATIVE ANALYSIS.—Continuation of 5a. Methods; the analysis of silicates, metallic compounds, and alloys; advanced qualitative analysis for students in the course in chemistry and chemical engineering. Lectures; laboratory. II; (5).

Professor Bartow, Dr. Burgess

Prerequisite: Chemistry 5a.

5c. FOOD ANALYSIS.—The analysis of food stuffs: grains; milled products; alcoholic beverages; baking powders; vinegars; syrups; sugars. (Students who have taken work amounting to five hours' credit in this course may arrange to do advanced work along the following lines: Methods of detecting food adulterations; the separation and determination of the nitrogenous constituents of animal and vegetable foods; the identification and estimation of the carbonydrate constituents of food products.) II; (3-5).

Professor Bartow, Dr. Burgess

Prerequisite: Chemistry 5a or 13a; 9 or 14.

6. CHEMICAL TECHNOLOGY.—Technological chemistry as illustrated in those industries having a chemical basis for their principal operations and processes; trade journals. Lectures; no laboratory. Thorp's Industrial Chemistry. II; (2).

Professor Park

Prerequisite: Chemistry 5a.

7. METALLURGY.—Lectures; assigned reading. I; (2).

Professor Park

Prerequisite: Chemistry 5a.

8. IRON AND STEEL ANALYSIS.—Analyses of all the constituents by both rapid or technical, and standard methods. II; (3).

Dr. Burgess

Prerequisite: Chemistry 5b.

9. Organic Chemistry.—The characteristics of the more typical and simple organic compounds; the important classes of derivatives of carbon. Moore's Organic Chemistry. (For students of the medical preparatory course and others desiring a short course.)  $H_i$  (3).

Assistant Professor Curtiss

Prerequisite: Chemistry 2, 3; registration in Chemistry 9c.

9a. Organic Synthesis.—Ultimate organic analysis; the preparation and study of typical organic compounds. Laboratory. (For students in the chemistry course.)  $I_j$  (2).

Assistant Professor Curtiss, Dr. Derick

Prerequisite: Chemistry 2 and 3; registration in Chemistry 14.

9b. Organic Synthesis and Analysis.—Continuation of 9a. II; (2). Assistant Professor Curtiss, Dr. Derick

Prerequisite: Chemistry 9a; registration in Chemistry 14.

9c. Organic Synthesis. — Typical organic compounds; the organic substances of medicinal value and of physiological importance. Laboratory. (For students in the medical preparatory course and others desiring a brief course.) II; (2).

Assistant Professor Curtiss, Dr. Derick

Prerequisite: Chemistry 2, 3.

10a. WATER ANALYSIS.—The history, sources, contamination, and standards of purity of potable waters and waters for industrial purposes; practice in analytical methods. Lectures. *I*; (2).

Professor Bartow

- 10b. (A modification of 10a to meet the requirements of students in sanitary engineering, registered in connection with Chemistry 2 and 3.) II; (2½). Professor Barrow
- 11. RESEARCH.—Thesis embodying a thorough review of the literature of the subject; account of work done in the laboratory. The subject should be determined upon and reading begun in the junior year. A minimum of five semester hours is required. (Required for seniors.) I, II; (5).

Professors Noves, Parr, Bartow, Hawk, Assistant Professors Curtiss, Balke, Washburn, Dr. Smith, Dr. Isham, Dr. Jones, Dr. Jesse, Dr. Burgess, Dr. McCarthy, Dr. Derick, Dr. Howe

13a. AGRICULTURAL ANALYSIS.—Problems for agricultural students; the quantitative determination and separation of the more important constituents of soils, fertilizers, and foodstuffs. *I* or *II*; (5).

Professor Bartow, Dr. Burgess

Prerequisite: Chemistry 2, 3.

13b. ADVANCED AGRICULTURAL ANALYSIS.—The complete analysis of foods, soils, plants, plant ash, rain and drain waters; the determination of the fuel value of foods. (A continuation of Chemistry 13a for students who wish to specialize in agricultural chemistry.) II; (3, 5).

Professor Bartow, Dr. Burgess

Prerequisite: Chemistry 5a or 13a.

14. Organic Chemistry.—Lectures; recitations. Noyes's Organic Chemistry. I, II; (3). Professor Noves Prerequisite: Chemistry 5a: should be accompanied by Chemistry 9a and 9b.

15. Physiological Chemistry.—Enzymes; carbohydrates; salivary digestion; gastric digestion; fats; pancreatic digestion; intestinal digestion; bile; putrefaction products; feces; blood; milk; epithelial and connective tissue: muscular tissue: nervous tissue: urine. Qualitative and quantitative work on gastric juice, blood, urine, and milk; the clinical aspects of these topics treated thoroughly for the benefit of prospective students of medicine. Lectures; demonstrations: conferences: practical work. Hammarsten's Text Book of Physiological Chemistry; Hawk's Practical Physiological Chemistry. (Open to graduates and undergraduates.) I; (5).

Professor HAWK, Dr. HOWE

Prerequisite: Two years' work in chemistry.

16. CHEMISTRY FOR ENGINEERS .- The proximate analysis of coal; determination of calorific power; technical analysis of furnace gases; examination of boiler waters; lubricating oils. (For mechanical engineers.) II; (3). Professor Park, Dr. Jesse

Prerequisite: Chemistry 1.

17. TEACHERS' COURSE .-- The methods of teaching elementary Assistant Professor BALKE chemistry. I; (1).

18. Special Courses.—Special courses as indicated below, mainly laboratory work, may be arranged for those competent to pursue them. From 1 to 10 hours' credit will be allowed in the undergraduate courses for such work:

SPECIAL PROBLEMS IN ASSAYING AND ORE TREATMENT. FREE-MILLING CHLORINATION AND CYANIDE TESTS. Professor PARR

ADVANCED METALLURGICAL CHEMISTRY. Professor PARR

ANALYSIS AND CALORIMETRY OF FUELS. Professor PARR

PAINTS: OILS: PROTECTIVE COVERINGS FOR WOOD AND IRON.

Professor Park

ANALYSIS OF COMMERCIAL FERTILIZERS. Professor Bartow 21. QUALITATIVE ORGANIC ANALYSIS .- Systematic methods for identification of pure organic compounds and mixtures. I; (2).

Dr. DERICK

Prerequisite: Chemistry 9a, 9b.

22. Animal Chemistry.—The chemical composition of animal products and feeding stuffs. Classroom and laboratory work. *I* or *II*; (3-5). Professor Grindley

Prerequisite: Two years' work in chemistry.

27. QUALITATIVE ANALYSIS OF THE RARE ELEMENTS.—The rare elements and their compounds; identification and separation of the elements; formation, solubilities, and chemical reactions of their salts. Assigned reading; laboratory. II; (3).

Assistant Professor Balke Prerequisite: Two years' work in chemistry.

31. ELEMENTARY PHYSICAL CHEMISTRY.—Some of the more important principles and methods of physical chemistry and electrochemistry; numerous problems. Lectures; recitations. Walker's Introduction to Physical Chemistry. II; (3).

Assistant Professor Washburn

Prerequisite: Chemistry 1, 2, 3; Physics 1 or 2a; Mathematics 8a.

33. Elementary Physical Chemistry.—The methods of determining molecular weight both in the gaseous state and in solution; the principles relating to chemical equilibrium; the measurement of the electrical conductivity of solutions and the application of this property in interpreting the phenomena occurring within the solution; some of the fundamental conceptions of thermochemistry. (Laboratory to accompany course 31.) II; (2).

Assistant Professor Washburn, Dr. Jones

Prerequisite: Chemistry 5a; Physics 2b or 3.

35. Electrochemistry.—Electrochemistry in the industries; the study of patents in selected industries. Lectures; recitations; laboratory; reports. Blount's *Practical Electrochemistry*. *I*; (3 or 5). (See also chemistry 102b.)

Dr. JONES

Prerequisite: Chemistry 31, 33.

61. Inorganic Preparation.—The preparation of chemical products from raw materials. The manufacture and testing of pure chemicals; fractionation; other processes of the manufacturing chemist. Laboratory. II; (2).

Dr. Jesse

Prerequisite: Chemistry 5a.

65. TECHNICAL GAS AND FUEL ANALYSIS.—Examination of gases, gas mixtures, flue gases, and fuels; determination of calorific values; calculation of efficiencies. 1; (2). Professor Parr, Dr. Jesse

Prerequisite: Chemistry 5a.

66. Exact Gas Analysis.—The analysis of commonly occurring gaseous mixtures, involving the use of the Hempel apparatus; measuring gases under constant pressure and constant volume; determination of the density of gases. Lectures; laboratory. II; (2). Dr. ISHAM

Prerequisite: Chemistry 5b.

68a. Analysis of Glasses and Glazes.—Special problems connected with the pottery industry. (For students in ceramics.) I; (3). Professor Bartow

Prerequisite: Chemistry 5b.

68b. Cement Chemistry.—The analysis of cements; cement materials; pottery bodies. (For students in ceramics.) I; (3).

Professor Bartow

Prerequisite: Chemistry 5b.

69. Assaying.—The fire assay of lead, gold, and silver ores. Fluxes; reagents; charges; typical ores; practice in use of the crucible and nuffle furnaces and in the manipulations connected with fire assaying. I; (2).

Professor Parr, Dr. Jesse

Prerequisite: Chemistry 5a and Geology 5.

93. JOURNAL MEETING.—(For juniors, seniors, and graduates.) I, II; (1). All members of the teaching staff in the chemical department.

For Juniors, Dr. SMITH

For Seniors, Assistant Professor Curtiss

#### COURSES FOR GRADUATES

Graduate students whose major subject is in some department other than chemistry, before taking graduate work for credit in this department must have had the equivalent of 15 University credits in chemistry, and the work covered must have included satisfactory work in general chemistry and in qualitative and quantitative analysis. Such students are advised to take Chemistry 31, 33, 102, 102a, 5b, 5c, 14, 9a and 9b. Courses of a more special nature will not, as a rule, be accepted for graduate work unless preceded by one of the above courses.

For students in Agriculture, Chemistry 5a and 13a will not be accepted for graduate credit.

Graduate students who are candidates for an advanced degree in chemistry must have had the equivalent of 30 University credits in chemistry, and this must include satisfactory courses in general chemistry, qualitative and quantitative analysis, physical chemistry and organic chemistry. Before receiving the degree of Doctor of Philosophy such students are expected to complete work equivalent

to courses 31, 33 (or 102 and 102a), 14, 9a, 9b, 101, and 111. They are advised to take at least brief courses in gas analysis, iron and steel analysis, water analysis, assaying, and chemical technology.

For students in chemistry, 5a, 13a, 9 and 9c will not be accepted for graduate credit and 9a, 9b, 14, 31 and 33 will be accepted only from students entering the Graduate School with the equivalent of 30 University credits in chemistry.

101. HISTORY AND THEORIES OF CHEMISTRY.—Twice a week; I.

Dr. Smith

102. ADVANCED PHYSICAL CHEMISTRY.—Seminar. The subject is treated from the standpoint of Avogadro's Principle and thermodynamics and the course is based primarily upon Nernst's Theoretische Chemie. Noyes' General Principles of Physical Science; Nernst's Theoretische Chemie, 6th edition, or the translation of the 4th edition. Twice a week; I, II. (This course and course 102a are intended to cover a period of two years.)

Assistant Professor WASHBURN

Prerequisite: Chemistry 1, 2; Physics 1, 3; Mathematics 8a or 7 and 9. An elementary knowledge of organic and physical chemistry is desirable.

102a. Advanced Physical Chemistry.—The physical properties of chemical substances; the Phase Rule; certain portions of thermochemistry; photochemistry; the thermodynamics of electrochemistry; radioactivity and the atomistic theory of electricity. (This course is a continuation of 102, with which it alternates.) Nernst's Theoretische Chemie. Twice a week; I, II. Assistant Professor WASHBURN

Prerequisite: The same as course 102.

[Not given in 1910-11.]

102b. Advanced Electrochemistry.—The modern theories of solution and the principles of thermodynamics in their application to the problems of electrochemistry; electrolytic conductivity and transference; electro-motive force; the energy principles underlying the transformations of chemical and electrical energy; the recent advances in the electrolysis of fused electrolytes and the applications of electricity to gaseous reactions at high temperatures. LeBlanc's Electrochemistry. Three times a week; II.

Dr. Jones

(Open to undergraduates having the necessary preparation.)

Prerequisite: Chemistry 31, 33; Mathematics 8a or 7 and 9.

102c. Advanced Physical and Electrochemistry.—The applications of physico-chemical methods to special problems. Laboratory.

Twice a week; I. Assistant Professor Washburn, Dr. Jones

Prerequisite: Chemistry 31, 33; registration in Chemistry 102b, or completion of Chemistry 102, 102a, or 102b; Mathematics 8a or 7 and 9.

102e. Special Topics in Physical Chemistry.—Seminar. Subject for 1910-11: Capillary Chemistry and the Chemistry of Colloids. Freundlich's Kapillar-chemie; Ostwald's "Grundriss der Kolloid-chemie." I.

Assistant Professor Washburn

Prerequisite: Chemistry 102 or 102a.

103. ADVANCED INORGANIC CHEMISTRY.—Descriptive inorganic chemistry; the rarer elements; the periodic system. Lectures, with or without laboratory. Two to five times a week; I, II.

Assistant Professor Balke

103a. Advanced Analytical Chemistry.—Advanced Quantitative Analysis. Special topics. Lectures. One to five times a week; II.

Dr. Burgess

104. Advanced Organic Chemistry.—Special chapters. Recent research methods in condensations, carbohydrates, fermentation and enzyme action, the purine group, the proteins, isomeric change, stereochemistry of nitrogen; the relation of color to chemical constitution; alkaloids. Lectures. Twice a week; I. Assistant Professor Curtiss

Prerequisite: Chemistry 9 and 14.

105. ADVANCED PHYSIOLOGICAL CHEMISTRY.—Selected portions of physiological chemistry not covered by Chemistry 15. Lectures; conferences; demonstrations. (Open to graduates or undergraduates.)

Twice a week; II. Professor Hawk

Prerequisite: Chemistry 15.

105a. Advanced Physiological Chemistry.—Special topics. Laboratory. Two to five times a week; II. Professor Hawk, Dr. Howe Prerequisite: Chemistry 15.

106. Animal Chemistry.—The recent advances in the chemistry of nutrition of the lower animals; the chemistry of the functional products: the flesh, fat, milk, and wool, of the more common domesticated animals. Lectures. Twice a week; I, II. Professor Grindley Prerequisite: Two years' work in Chemistry.

107. CALORIMETRY OF FUELS.—Methods for determining the heat values of solid, liquid, and gaseous fuels. One to three times a week; I. II.

Professor PARR

108. WATER SUPPLIES.—The sources of contamination of water supplies and the purification of water for potable or technical use. Five times a week; I, II. Professor Barrow

111. Thesis Work.—A thesis will usually be required of students taking the Master's degree and will always be required of students taking the degree of Doctor of Philosophy. (For a description of undergraduate work leading to a thesis, see Chemistry 11.)

Work may be taken in the following subjects:

PHYSICAL AND ELECTROCHEMISTRY

Assistant Professor Washburn, Dr. Jones
Inorganic Chemistry Assistant Professor Balke, Dr. Smith
Analytical Chemistry Professor Baetow
Organic Chemistry

Professor Noyes, Assistant Professor Curtiss
Sanitary Chemistry Professor Bartow
Animal Chemistry Professor Grindley
Physiological Chemistry Professor Hawk
Applied Chemistry

Professor Parr, Assistant Professor McFarland

## CIVIL ENGINEERING

1. ROADS AND PAVEMENTS.—The value and importance of road improvement in country highways; means of securing it; construction of earth, gravel, and macadam roads; methods of construction, cost, durability, and desirability of the various kinds of pavement; grades; cross-sections; assessment of cost; maintenance and cleaning. Baker's Roads and Pavements. II; (2). Mr. PICKELS, Mr. WILEY

Prerequisite: Mathematics 4; General Engineering Drawing 1, 2; Civil Engineering 21, 22, 23.

- 4. RAILROAD SURVEYING.—The principles of economic location and the construction of railways; railway appliances and maintenance-of-way practice. Field practice: Preliminary and location surveys of a line of railroad of sufficient length to secure familiarity with the methods of actual practice. Each student makes a complete set of notes, maps, profiles, calculations and estimates. Nagle's Field Manual for Railroad Engineers. I; (5). Mr. SMITH, Mr. PICKELS, Mr. WILEY Prerequisite: Civil Engineering 21, 22, 23.
- 4a. RAILROAD SURVEYING.—The first eleven weeks of course 4, for students in municipal and sanitary engineering. I; (3).
- 5r. Masonry Construction. Baker's Masonry Construction. I; (4). Professor Baker, Associate Professor Brooks, Mr. Richer Prerequisite: Theoretical and Applied Mechanics 7, 8, 9, 10; Civil Engineering 20.

51. CEMENT LABORATORY PRACTICE. Waterbury's Cement Laboratory Manual. I; (1).

Mr. RICHEY

Prerequisite: Theoretical and Applied Mechanics 7, 8, 9, 10; Civil Engineering 20; registration in 5r.

6. MASONRY AND REINFORCED CONCRETE DESIGN.-II; (2).

Associate Professor Brooks, Mr. SMITH

Prerequisite: Civil Engineering 5.

10. Surveying.—Areas with chains and compass; U. S. public land surveys; principles of re-establishing corners; use of transit in finding distance, areas, and in laying out buildings; use of the level in finding profiles and contours. (For students in architecture, architectural engineering, electrical engineering, and mechanical engineering.) Pence and Ketchum's Surveying Manual; II; (2).

Mr. Pickels, Mr. Wiley

Prerequisite: Mathematics 4; General Engineering Drawing 1, 2; Physics 1, 3.

12. BRIDGE ANALYSIS.—The computation of the stresses in the various forms of bridge trusses, by algebraic and graphic methods, under different conditions of loading. Merriman and Jacoby's Roofs and Bridges, Part Two; Dufour's Bridge Engineering, Part One. 1; (2).

Assistant Professor Dufour, Assistant Professor Malcolm, Mr. Garver

Prerequisite: Theoretical and Applied Mechanics, 7, 8, 9, 10; and for civil engineering students, Civil Engineering 20, and for architectural engineers, Architecture 5.

13. BRIDGE DETAILS.—Tracing of shop drawing of bridge; critical report upon each element of the design; computation of the cost of the bridge; forms of details employed by leading designers. *I*; (3).

Assistant Professor Dufour, Mr. Garver

Prerequisite: Civil Engineering 12 and free-hand sketches, with dimensions, showing full details of a bridge measured by the student.

- 13a. Bridge Details.—Part of course 13 above for municipal and sanitary engineering and architectural engineering students. I; (2).
- 13b. STRUCTURAL DETAILS.—The same as course 13 above, for mining engineering students, except that instead of bridges coal tipples and head frames are studied. *I*; (2).
- 14. BRIDGE DESIGN.—Individual design of a railroad plate girder and a truss span, with sections proportioned and details worked out,

followed by a complete set of drawings. Dufour's Bridge Engineering, Part Two. II; (5).

Assistant Professor Dufour, Assistant Professor Malcolm, Mr. Garver

Prerequisite: Civil Engineering 12, 13.

14a. Bridge Design.—Part of course 14 above, for municipal and sanitary engineering students. II; (2).

- 14b. Structural Design.—Part of course 14 above, arranged for mining engineering students. II; (2).
- 15. ADVANCED BRIDGE ANALYSIS.—The computations of stresses and deflections of continuous, draw, cantilever, suspension, and metal-arch bridges; the statically-indeterminate stresses of framed structures. Merriman and Jacoby's Roofs and Bridges, Part Four. II; (2).

Assistant Professor Dufour, Assistant Professor Malcolm, Mr. Garver

16. Engineering Contracts and Specifications.—The law of contract; examples of general and technical clauses used in engineering specifications. Johnson's Engineering Contracts and Specifications. II; (2).

Associate Professor Brooks, Mr. Smith

Prerequisite: Civil Engineering 5, 12, 13; Municipal and Sanitary Engineering 2, 3.

18. Tunneling.—The principles of tunneling; methods of constructing the more noted tunnels. Stauffer's Modern Tunnel Practice. II; (1).

Associate Professor Brooks

Prerequisite: Mechanical Engineering 1, 11; Chemistry 1; Physics 1, 3; Theoretical and Applied Mechanics 7, 8, 9, 10; Civil Engineering 5, 12, 13, 14.

20. Graphic Statics.—Elements of graphic statics and applications in designing structures. Malcolm's *Elements of Graphic Statics*. II; (2). Mr. RICHEY

Prerequisite: Mathematics 2, 4, 6; Theoretical and Applied Mechanics 7, 8, 9, 10; General Engineering Drawing 1, 2.

21. Surveying.—The theory, use, and adjustment of the compass, level transit, plane table, and sextant. Field work; the determination of distances by pacing and with the chain and tape; the determination of areas with the compass, transit, and plane table; profile leveling. The U. S. land survey methods, and court decisions relating to the re-establishment of corners, boundaries, partition of land,

interpretation of deeds, and in city and farm surveying. Tracy's Plane Surveying; Pence and Ketchum's Surveying Manual. I; (5). Mr. ALGER, Mr. GAY, Mr. VAN ZANDT, Mr. RAYNER

Prerequisite: General Engineering Drawing 1, 2: Mathematics 4.

22. TOPOGRAPHIC SURVEYING .- The theory and use of the stadia and other instruments used in making a topographic survey; methods; topographic drawing; a complete topographic survey based on a system of triangulation including the calculations, and platting and completing the map; precise measurement of bases and angles. Tracy's Plane Surveying: Pence and Ketchum's Surveying Manual. II: (4).Mr. Alger, Mr. Gay, Mr. Van Zandt, Mr. Rayner

Prerequisite: Civil Engineering 21; General Engineering Draw-

ing 1, 2; Mathematics 4.

23. RAILROAD CURVES .- The geometry of the circle as applied to railroad curves; the methods of locating curves in the field. Nagle's Field Manual for Railroad Engineers. II; (1).

Mr. Alger, Mr. Gay, Mr. Van Zandt, Mr. Rayner Prerequisite: Civil Engineering 21, 22; General Engineering Drawing 1, 2; Mathematics 4. Taken with C. E. 22.

- 24. METAL STRUCTURES .- The design and calculation of stresses in mill and steel-skeleton buildings. Ketchum's Steel Mill Buildings and lectures. I; (1). Assistant Professor Malcolm, Mr. Garver Prerequisite: Civil Engineering 12, 13, 20.
- 25. SEMINAR.-Reading and discussion of papers. Each student presents one major and two minor papers upon assigned topics, and participates in the discussion of other papers. II; (1).

Professor Baker, Associate Professor Brooks, Assistant Pro-

fessor Dufour

Perequisite: Full senior standing in Civil Engineering.

30. Thesis.-First semester: Preliminary work, with weekly conferences; second semester: Specified hours for work and conferences. I; (1); II; (2). Instructor assigned by Professor BAKER Prerequisite: Full senior standing.

# COURSES FOR GRADUATES

107. BRIDGE DESIGN.—The determination of the stresses in swing, cantilever, and suspension bridges; structural details; shop equipment; methods of fabrication. Inspection of and report upon bridge shops or work in progress. I or II; three to five times a week. Assistant Professor Dufour 110. METALLIC BULLDING CONSTRUCTION.—The design of the metal skeleton of buildings for various purposes. Conferences, problems, and inspection of construction work in progress. I or II; three to five times a week.

Assistant Professor Malcolam

115. REINFORCED CONCRETE DESIGN.—The materials, design, forms, and erection of reinforced-concrete structures. I or II; three to ten times a week.

Assistant Professor Brooks

129. General Engineering Experience.—The practical experience of graduates of the University of Illinois in actual engineering work. To obtain credit, the student may be required to submit reports, designs, etc.

Professor Baker

## THE CLASSICS

## GREEK

#### COURSES FOR UNDERGRADUATES

Courses 1 to 4 inclusive are designed to meet the needs of students who cannot present Greek for entrance and yet wish to study the language.

- 1. Beginning Greek, Grammar and Reader.—Xenophon's Anabasis, book I. I, II; (4). Dr. Canter
  - 3. Xenophon.—Anabasis, books II-IV. I; (4).

    Associate Professor Oldfather

Prerequisite: Greek 1.

4. Homer.—Six books of the Iliad. II; (4).

Associate Professor Oldfather

Prerequisite: Greek 3.

5. Herodotus: the Lyric Poets.—I; (3). Professor Moss Prerequisite: Greek 4.

[Offered in 1910-1911; to be omitted in 1911-1912.]

6. THUCYDIDES .- Books VI-VII. II; (3).

Assistant Professor Pease

Prerequisite: Greek 5 or 7.

[Offered in 1910-1911; to be omitted in 1911-1912.]

7. THE DRAMA.—I; (3).

Professor Moss

Prerequisite: Greek 4.

[Offered in 1910-1911; to be omitted in 1911-1912.]

S. Plato.—Selected dialogues, including the  $\triangle pology$  and  $Phaedo.\ II;\ (3).$  Assistant Professor Pease

Prerequisite: Greek 5 or 7.

[Omitted in 1910-1911; to be offered in 1911-1912.]

14. ADVANCED GREEK PROSE COMPOSITION .- II; (1).

Professor Moss

Prerequisite: Greek 6 or 8.

## GREEK LIFE AND LITERATURE IN ENGLISH

(Courses 16-19 presuppose no knowledge of Greek and are open to all students except freshmen.)

16. The Private and Public Life of the Greeks.—Lectures, illustrated by photographs and slides; prescribed readings. *I*; (1).

Professor Moss

17. GREEK POETRY IN TRANSLATIONS .- I; (2). Professor Moss

18. GREEK PROSE IN TRANSLATIONS .- II; (2). Professor Moss

19. GREEK DRAMA IN TRANSLATIONS.-II; (2). Professor Moss

20. HISTORY OF GREECE.—I; (3). (This course is described by the department of history as History 5.) Assistant Professor Pease Prerequisite: One course in History or the Classics.

## COURSE FOR ADVANCED UNDERGRADUATES AND GRADUATES

21. Beginning Greek.—Elementary Composition and Grammar; lectures on Greek Literature. I, II; (4). Professor Moss

## COURSES FOR GRADUATES

103. Principles of Comparative Grammar.—I. (The same as Latin 101.)  $\qquad \qquad \text{Dr. Canter} \quad .$ 

104. Homer and the Homeric Question.-I, II.

Associate Professor OLDFATHER

[Offered in 1910-1911; to be omitted in 1911-1912.]

105. PLATO AND ARISTOTLE.-I, II.

Associate Professor OLDFATHER [Omitted in 1910-1911; to be offered in 1911-1912.]

106. Greek Drama.—I, II. Professor Moss [Offered in 1910-1911; to be omitted in 1911-1912.]

107. Greek Oratory.—I, II. Professor Moss [Omitted in 1910-1911; to be offered in 1911-1912.]

### LATIN

### FIRST-YEAR COURSES

- PLINY AND VERGIL.—Selections from Pliny's Letters and the Aeneid. I, II; (4). Assistant Professor Pease and Dr. Canter Prerequisite: Three entrance units in Latin.
- 2. LIVY, PLAUTUS, AND TERENCE.—Selections from Livy; the Captivi of Plautus and the Phormio of Terence. I, II; (4).

Professor Barton

Professor Barton

Prerequisite: Four entrance units in Latin.

### SECOND-YEAR COURSES

3. SALLUST AND CICERO.—Selections from the Jugarthan War; De Senectute. I; (3). Dr. CANTER

Prerequisite: Latin 2.

4. CATULLUS AND CICERO. Selections from the lyrics of Catullus and the Odes of Horace. Professor Barton

Prerequisite: Latin 2.

II; (1).

5. LATIN COMPOSITION.—Grammatical drill; practice in the simpler forms of expression. I, II; (1). Dr. CANTER Prerequisite: Latin 1 or equivalent.

#### ROMAN LIFE AND LITERATURE IN ENGLISH

(Courses 12 and 13 presuppose no knowledge of Latin; open to all students except freshmen.)

- 12. Vergil and Horace in English Translations.—I; (1).

  Professor Barton
- 13. ROMAN LIFE.—The family; amusements; education; morals; society; movuments. Lectures, illustrated by photographs and slides.
- 19. Roman History.— $II_j$  (3). (This course is described by the department of history as History 6.) Dr. Canter

Prerequisite: One course in History or the Classics.

#### COURSES FOR ADVANCED UNDERGRADUATES

7. Horace and Juvenal.—Selections from the Satires and Epistles of Horace; selected Satires of Juvenal. I; (3).

Associate Professor OLDFATHER

Prerequisite: 12 hours' credit in Latin.

8. TACITUS.—The Annals, books I-VI. II; (3).

Assistant Professor PEASE

Prerequisite: 12 hours' credit in Latin.

9. TEACHERS' COURSE .- The purpose and methods of preparatory Latin instruction; the teacher's preparation. II; (1).

Professor Barton

Prerequisite: 18 hours' credit in Latin. A portion of this requirement waived for those who have taught Latin,

10. LATIN COMPOSITION .- The leading principles: imitation of Professor Barton assigned models. I; (2).

Prerequisite: 12 hours' credit in Latin, including Latin 5 or its equivalent.

## COURSES FOR ADVANCED UNDERGRADUATES AND GRADUATES

14. Seneca.—Selections from his essays, letters, and tragedies. Professor Barton I: (3).

Prerequisite: 18 hours' credit in Latin.

16. MARTIAL AND SUETONIUS.—Selections. II; (3).

Associate Professor OLDFATHER

Prerequisite: 18 hours' credit in Latin.

#### COURSES FOR GRADUATES

- PRINCIPLES OF COMPARATIVE GRAMMAR .-- I. (The same 101. Dr. CANTER as Greek 103.)
- 103. CICERO,-De Natura Deorum and De Divinatione. I. Twice Assistant Professor Pease a week.
  - 104. PALAEOGRAPHY .- I. Once a week.

Assistant Professor Pease

105. Survey of Latin Poetry .-- II. Twice a week.

Assistant Professor Pease

106. COMEDY .-- I, II. Associate Professor Oldfather

107. EPIGRAPHY .-- II. Twice a week.

Assistant Professor Pease

108. Tacitus.—The Histories. II.

Professor Barton

## COMMERCIAL LAW

# (See ACCOUNTANCY and ECONOMICS.)

B. COMMERCIAL LAW .- The law of contracts; negotiable instruments; agency; partnerships; business corporations; sales of personal property; bailments and carriers; guaranty and suretyship; insurance. (This course is intended for students of commerce, is not a technical law course, and may not be counted toward the law degree.) II; (3).

Prerequisite: 60 hours of University credit, including Economics 1 or 2 and Accountancy 1.

## DAIRY HUSBANDRY

1. MILK.—Secretion; character; composition; Babcock test; lactometer; acid tests; tests for purity and adulteration. Lectures; reference readings; laboratory. *I*; first or second half; (3).

Mr. HEPBURN, Mr. LANG

- 2. Dairy Cattle.—Characteristics of the cow, especially of the dairy type; improvement of the herd through testing; details of the test; value of continued use of pure-bred sires; rearing young stock for the dairy herd. Lectures; assigned readings; recitations; judging. I; first half; (2½). Mr. Gaines
- 7. Factory Management.—Special problems in the manufacture of butter and cheese; management of creameries and cheese factories under private and co-operative ownership; locating, planning, building, equipping, and operating plants; creamery and cheese factory sanitation and products. Lectures; assigned readings; laboratory work. (For creamery butter makers, factory cheese makers, and others wishing a more extended course in butter and cheese making.) II; second half; (3).

  Mr. Hepburn, Mr. Lang

Prerequisite: Dairy Husbandry 19.

8. CITY MILK SUPPLY.—Proper methods of handling and preparing milk and cream for direct consumption; preventing contamination, pasteurizing, standardizing, modifying, bottling, transporting, and delivering; certified milk; value of milk as food; milk commissions; legal requirements of cities and states. Lectures; reference readings; laboratory. II; first half; (2½).

Mr. YATES, Mr. BRAND

Prerequisite: Dairy Husbandry 1.

11. DAIRY BACTERIOLOGY.—Bacteria and the dairy industry; where and to what extent milk may become contaminated; how contamination may be avoided; bacteria and the changes in milk; effect of methods of handling and of temperature upon the bacterial content of milk; bacteria in the manufacture of butter and cheese. Laboratory work; lectures; assigned readings. I; first half; (2½).

Prerequisite: Dairy Husbandry 1; Botany 12.

12. INVESTIGATION AND THESIS .- (5-10).

Professor Fraser, Assistant Professor Hayden, Mr. Hepburn

14. CHEDDAR CHEESE.—Ripening and setting milk; cutting, cooking, and dipping the curd; cheddaring, milling, maturing, and salting curds; pressing and curing cheese. *I*; second half; (3).

Mr. HEPBURN, Mr. LANG

Prerequisite: Dairy Husbandry 1.

15. FANCY CHEESE.—Making and curing different varieties, such as Swiss, Edam, Gouda, brick, and cottage. II; second half; (2½).

Mr. Hepburn

Prerequisite: Dairy Husbandry, 1, 14. [Not given in 1909-10.]

16. FEEDING AND CARE OF HERD.—Compounding rations for dairy cows; individual practice in feeding; housing and care of the herd; arrangements and construction of dairy barns, silos, and yards.  $I_j$  second half;  $(2\frac{1}{2})$ . Associate Professor HAYDEN

Prerequisite: Animal Husbandry 21.

17. Pure-Bred Herds.—History of dairy breeds; characteristics and adaptation to different climatic conditions and economical purposes; importance of environment and food in securing and maintaining improvement in dairy cattle; important families and breeds; heredity; selection of sires; weeding out and disposal of females and surplus stock; scoring with the breed standards. Lectures; assigned readings; recitations. II; second half; (2½). Mr. GAINES

Prerequisite: Dairy Husbandry 2.

19. Butter Making.—Systems of creaming milk; efficiency of cream separators under varying conditions; pasteurization; the use of different kinds of lactic ferments; ripening cream; churning; working; packing and scoring butter. II; first half; (3).

Mr. HEPBURN, Mr. LANG

Prerequisite: Dairy Husbandry 1.

20. Comparative Dairying.—Dairying in different countries; dairying in the United States; its magnitude and relation to other lines of farming; influence of soil, climate, market conditions, and location in determining special lines of dairy development; experiment station literature. Lectures; assigned readings. II; first half; (3).

Assistant Professor HAYDEN

Prerequisite: Two years of University work.

21. ECONOMIC MILK PRODUCTION.—Difference in efficiency of individual cows, showing the real relation of the cow and the herd

to the profits derived from milk production; how to establish and perpetuate a dairy herd of the highest efficiency; comparison of different rations for economic milk production; crops on a dairy farm and the economy of the ration; organization of a dairy farm; producing and disposing of milk at the greatest possible profit. II; (5).

Professor Fraser, Mr. Brand

Prerequisite: Dairy Husbandry 1, 2, 16.

## COURSES FOR GRADUATES AND ADVANCED UNDERGRADUATES

7. FACTORY MANAGEMENT.—Lectures; assigned readings; laboratory. Three times a week; II; (second half).

Mr. HEPBURN, Mr. LANG

S. CITY MILK SUPPLY.—Proper methods of handling and preparing milk and cream for direct consumption; preventing contamination; pasteurizing; standardizing; modifying; bottling; transporting; delivering; certified milk; value of milk as a food; milk commissions; legal requirements of cities and states. II; (first half).

21. ECONOMIC MILK PRODUCTION .- Five times a week; II.

Professor Fraser

### COURSES FOR GRADUATES

- 101. ECONOMIC MILK PRODUCTION.—Differences in the efficiency of dairy cows; cause and effect of the same; successful dairy farming. Twice a week; I, II. Professor Fraser
- 102. RESEARCH.—The investigations in progress in the dairy herds of the state. Twice a week; I, II. Professor Fraser
  - 103. Research.—Dairy feeding problems. Twice a week; I, II.

    Professor Fraser

# DRAWING, GENERAL ENGINEERING

1. ELEMENTS OF DRAFTING.—Practice in lettering, isometric and oblique drawing, orthographic projection, machine sketching, and in the making of working drawings. Lettering: mechanical styles and the making of name plates and titles for mechanical drawings. Practice in mechanical drawing: 12 plates from copy, with tracings of each, and 6 plates from models, with tracings of each. Dimensioned sketches from parts of standard machines, followed by complete working drawings. Tracings duplicated in blue-print form. Time sketches of the equipment in the shops and laboratories. Students in architecture are given practice in drawing plates dealing with architectural subjects in place of those involving machine parts. Miller

and Steward's Notes on Mechanical Drawing. Miller's Copy Plates. I; (4).

Mr. Miller, Mr. Steward, Mr. Porter, Mr. Lund, Mr. Ferguson, Mr. Carter

2. Descriptive Geometry.—The point, line, and plane; the properties of surfaces; intersections and developments. For architects, perspective instead of intersections and developments. Practical problems. Recitations precede the work in the drawing room at each period. Three drawing room plates, 2 hours each, 5 problems per plate, and 2 home plates, 5 problems each, constitute each week's work. Miller's Descriptive Geometry. II; (4).

Mr. Miller, Mr. Steward, Mr. Porter, Mr. Lund, Mr. Ferguson, Mr. Carter

Prerequisite: General Engineering Drawing 1.

## ECONOMICS

(See also Accountancy and Commercial Law, History, Political Science, and Sociology.)

The department of economics includes general economics, economic history, finance, commerce, industry, railway adminstration, and accountancy.

Courses 7, 22, and 26, English Economic History, the Economic History of the United States, and Economic Resources (Commercial Geography) are open to freshmen without previous requirement. Courses numbered 101 and above are open to graduate students only.

Courses 4, 10, 11, 12, 21, 29, 31, 35, 43, 44, 45, and 47 are open to graduates and advanced undergraduates.

1. Principles of Economics.—I; (5).

Professor Kinley and others

Prerequisite: Thirty hours of University work.

- 2. PRINCIPLES OF ECONOMICS.—(Section A open to junior and senior science and engineering students only; section C open to junior and senior agricultural students only.) I, II; (2).
  - I; Professor Robinson, Professor Dewsnup, Assistant Professor LITMAN, Dr. THOMPSON
  - II; Professor Robinson, Assistant Professor Litman, Dr. Thompson
- 3. Money and Banking.—The history and theory of money, eredit, and banking.  $H_{\mathcal{F}}$  (3). Professor Kinley and others

4. FINANCIAL HISTORY OF THE UNITED STATES.—Colonial and federal finance; currency; banking; tariff and fiscal questions. II; (3).

Assistant Professor Weston.

Prerequisite: Economics 3; History 3. [Not given in 1910-11.]

- 5. Public Finance.—Public expenditures; financial administration; taxation; public debts. I, II; (2). Associate Professor BOGART Prerequisite: Economies 1, 3; Political Science 1.
- 7. English Economic History.—The industrial development of England; the manorial system; the period of the gilds; the commercial policy and expansion of the seventeenth and eighteenth centuries; the industrial and manufacturing growth of the nineteenth century. (Open to freshmen and sophomores only.) I; (3).

Associate Professor Bogart, Dr. Towles, Mr. Martin

8. The Money Market.—Dealings in money and credit; the functions of money broker and banker; the concentration of financial dealings at such centers as New York and London; international payments and the determination of rates of foreign exchange; the seasonal demands for money; causes of fluctuation in rates of discount; monetary panics and crises; investments; the financial aspects of dealings on the stock and produce exchanges. II; (2).

Assistant Professor Weston

Prerequisite: Economics 9.

[Not given in 1910-1911.]

9. Banking.—Practical banking in the United States.  $I_j$  (2).

Assistant Professor Duncan

Prerequisite: Economics 3 and senior standing.

10. Corporation Management and Finance.—The growth of corporations; their causes and forms; the promotion, financiering, incorporation, and capitalization of corporate consolidations; their organization and securities; position and relations of stockholders and directors; analysis of reports; stock speculation; relations of industrial corporations to international competition; receiverships and reorganizations; social and political effects. *I*; (3).

Professor Robinson

Prerequisite: Economics 1 and 3.

11. Industrial Consolidations.—The development of industrial consolidation; the growth of monopoly; monopoly prices and methods;

the ability of trusts to affect prices, wages, interest, and profits; the proposed plans for controlling trusts. II; (3).

Professor Robinson

Prerequisite: Economics 10.

12. Labor Problems.—First semester: Present labor conditions and remedies other than trade unionism; unemployment; poverty; woman and child labor; improper housing. Remedial plans: Profit sharing; co-operation; labor legislation. Second semester: Labor organizations; history of trade unions; internal organization; restrictions as to membership; collective bargaining; limitation of output; objections to piece work; strikes; boycotts; injunctions. (I pre-requisite to II.) I, II; (3).

Prerequisite: Economics 1, 3.

13. Economic History of Europe.—The economic history of France, Germany, and England since the period of the industrial revolution. 1; (2).

Associate Professor Bogart

Prerequisite: Sixty hours of University work, including Economics 1, 3; History 1.

14. Advanced Economic History of the United States.—Industrial development; the relation between economic and political movements. II; (2).

Associate Professor Bogart

Prerequisite: Senior or graduate standing, including History 3.

16. Economic Problems.—Section A: Railway problems; taxation of corporations; the labor question. Section C: Special topics relating to agriculture. (A open to students in engineering, C to students in agriculture only.) II; Sec. A (2); Sec. C (3).

Professor Robinson, Professor Dewsnup, Assistant Professor Litman, Dr. Thompson,

Prerequisite: Economics 1 or 2.

18. Senior Seminar.—Investigation in economics, commerce, and industry; the preparation of theses. (For business students and others making economics a major.) I, II; (4-8 for the year).

Professor Robinson and other instructors in the department

21. SOCIALISM AND SOCIAL REFORM.—The historically important socialistic theories; the socialism of Karl Marx and the resulting social movements. II; (3).

Dr. Towles

Prerequisite: Economics 1, 3.

22. THE ECONOMIC HISTORY OF THE UNITED STATES.—The explorations and settlements leading to the colonization of this continent;

the growth of industry, agriculture, commerce, transportation, and labor. (Open to freshmen and sophomores only.) II: (3). Associate Professor Bogart, Dr. Towles, Mr. Martin, Mr. Flocken

- 24. Statistics.—See Mathematics 23a, 31, 129.
- 26. Economic Resources.—The natural and artificial conditions affecting commercial and industrial development; the more important products and industries of different countries; the extent and distribution of the resources and the industrial and commercial activities of the United States. (A one semester course; may be taken either semester.) I or II; (3).
  - Assistant Professor Litman, Dr. Macpherson, Mr. Martin Prerequisite: Registration in Geology 14 and 8 advised.
- 28. Domestic Commerce and Commercial Politics.—The principles and methods of buying and selling in internal trade; forms of wholesale and retail trade organizations; department, mail-order, and cooperative stores; markets; fairs; auctions; stock and produce exchanges; commercial competition; theory and practice of modern advertising; commercial travelers; mercantile credit. I; (3).

Assistant Professor LITMAN

Prerequisite: Economics 1, 3, 7, 22, 26.

29. Foreign Commerce and Commercial Politics.--Problems in international trade relations, and attempts to solve them; changes in theories and policies; economic systems (mercantile, free-trade, protective); classes of customs tariffs; commercial treaties; institutions for furthering export trade (commercial museums and bureaus of information, sample houses, consular reports). II; (3).

Assistant Professor LITMAN

Prerequisite: Economics 28.

30. TARIFF AND CUSTOMS REGULATIONS OF THE UNITED STATES.— The history of tariff legislation in the United States; the present tariff system; the organization and work of the custom house; entry of goods; bonded warehouses. I; (3). Assistant Professor Litman

Prerequisite: Economics 1, 3.

[Not given in 1910-11.]

31. COMMERCIAL RELATIONS OF THE UNITED STATES.—The trade relations of the United States with foreign countries; our manufacturers and exporters and sales abroad; methods and suggestions for the development of foreign trade. II; (3).

Assistant Professor LITMAN

Prerequisite: Economics 1, 3, 7, 22, 26; six hours of modern history.

33. Economics of Insurance.—The historical development of insurance; its economic aspects. I; (2). Professor Robinson

Prerequisite: Economics 1 and 3.

[Not given in 1910-11.]

35. Consular and Diplomatic Service.—The consular and diplomatic relations of the United States; the duties and functions of consuls in general; the foreign service of the leading commercial nations.  $II_{\mathcal{F}}$  (3). Assistant Professor Litman

Prerequisite: Economics 28, 29, or 30.

[Not given in 1910-11.]

36. Organization of Ocean Commerce.—The most important trade routes of the world; charter and line traffic; passenger and freight rates; governmental supervision and control of shipping; modern harbor facilities. II; (3). Assistant Professor Litman

Prerequisite: Economics 28, 29.

[Not given in 1910-11.]

41. RAILWAY HISTORY AND ORGANIZATION.—The railway development of the United States; transportation conditions prior to the introduction of the steam railway; growth of network; financial policy; traffic and operating developments; modern railway organization. I; (3).

Professor Dewsnup

Prerequisite: Economics 1, 3; for senior engineers, 2.

42. RAILWAY ADMINISTRATION.—Railway finance and taxation; theory of rates; state administration in the United States and abroad. II; (3).

Professor Dewsnup

Prerequisite: Economics 41.

43. TRAFFIC ADMINISTRATION.—Freight and passenger traffic departments; general problems; classification of business; stimulation of business by advertising and other means; necessary forms and reports; special traffic; claims; classification and tariffs; interrelation of railways in traffic matters. I; (3). Professor DEWSNUP

Prerequisite: Economics 1, 3; for senior engineers, 2; completion of or registration in 41.

[Not given in 1910-11.]

44. RAILWAY TRANSPORTATION. — The train service; train dispatching; the block system of train working; train speed and train accidents; the handling of the passenger service; passenger terminal facilities. II; (3).

Professor Dewsnup

Prerequisite: Economics 1, 3; for senior engineers, 2; completion of or registration in 42.

[Not given in 1910-11.]

45. RAILWAY PRACTICE.—The design of steam tracks, freight houses, and yards, with reference to economy and expedition of operation; methods of operation; fast freight services; car service and demurrage arrangements. *I*; (3). Professor Dewsnup

Prerequisite: Economics 1, 3; for senior engineers, 2; comple-

tion of or registration in 41.

47. Foreign Railway Systems.—Organization; methods of operation; political and other relations. II; (3). Professor Dewsnup Prerequisite: Economics 42.

48. THE ECONOMIC PROBLEM OF THE INTERURBAN RAILROAD.—The financing, management, and economic and social effects of the electric interurban railroad and its relation to the steam road. II; (2).

Professor DEWSNUP

Prerequisite: Economics 42.

[Not given in 1910-11.]

49. Economic Theory of Railway Location.—The consideration of railway location from the standpoint of economics, supplementing the engineering theory.  $I_{ij}$  (1). Professor Dewsnup

Prerequisite: Economics 42.

[Not given in 1910-11.]

## COURSES FOR GRADUATES

- 101. ECONOMIC THEORY.—Twice a week, I, II. Professor Kinley
- 103. SEMINAR IN RAILWAY ADMINISTRATION.—I, II.

Professor Dewsnup

104. Seminar in Commerce.—Present international commercial relations; the trade conditions of the United States; the extension of trade in foreign markets. I, II. Assistant Professor Litman

[Not given in 1910-11.]

106. RAILWAY POLICY.—Railway policies and problems in the United States and abroad. Once a week, I, II. Professor Dewsnup [Not given in 1910-11.]

107. The Corporation in Economic Evolution.—Once a week, I, II. Professor Robinson

108. COMPARATIVE CORPORATION ORGANIZATION. — Once a week. I, II. Professor Robinson

[Not given in 1910-11.]

118. SEMINAR.—I, II. Professor KINLEY, Dr. THOMPSON

120. HISTORY OF ECONOMIC THOUGHT .- Twice a week, I. II.

Dr. THOMPSON

### EDUCATION

(See also PHILOSOPHY and PSYCHOLOGY.)

The courses of the department fall into two general divisions: Courses primarily for professional training, and courses more specifically designed for general culture. The first division includes courses 1, 3, 4, 5, 6, 11, 14, 15, 101; the second division courses 2, 13, 16, 17, 18. Students majoring in education will be required to take a minimum of three hours in philosophy and three hours in psychology. They are specially advised to take courses 3a and 4 in philosophy, and courses 1 and 5 in psychology. Graduate students who are taking their major work in education must have had as a prerequisite for such study Education 1, 2, and 3 and at least one elementary course in psychology and one in philosophy. No student who has not at least junior standing will be allowed to elect courses in education.

#### INTRODUCTORY COURSES

1. PRINCIPLES OF EDUCATION.—The various processes involved in education traced back to the basic principles of biology, psychology, and sociology which explain and justify them. *I*; (5).

Professor Bagley

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Prerequisite: Two years of university work.

2. History of Education.—The development of educational theory and practice in their relation to the history of civilization. II; (5). Assistant Professor Anderson

Prerequisite: Two years of university work.

## INTERMEDIATE COURSES

3. General Method.—The application of the principles of education, psychology, and logic to the art of teaching. II; (3).

Dr. Norton

Prerequisite: Education 1.

6. PRINCIPLES OF SECONDARY EDUCATION.—High school organization and management; the educational values of the studies represented in the secondary curriculum; the structure of the course of study; the technique of secondary teaching and management. II; (3).

Professor BAGLEY, Assistant Professor HOLLISTER and special

lecturers.

Prerequisite: Education 1.

10. OBSERVATION AND PRACTICE TEACHING.—Systematic observation of classroom work in the Academy of the University and in

neighboring high schools; weekly conferences for the discussion of observations; one lecture each week upon the technique of teaching; the preparation by students of plans illustrating the types of school exercises discussed in the lectures. *I* or *II*; (2).

Professor Bagley, Dr. Norton

Prerequisite: Education 1.

11. Practice Teaching.—The student teaches a class of secondary grade during the entire semester under the supervision of the department of education and the Academy instructors, ranking during this time as an assistant in the Academy. Only seniors who satisfy the department and the Principal of the Academy of their fitness for this work may enroll. Application should be made the preceding semester. I or II; (5).

Professor Bagley, Dr. Norton

Prerequisite: Education 1, 10.

(Note:—The courses in observation and practice teaching are under the general supervision of Professor Bagley. The Principal of the Academy and the Academy instructors coöperate with the department of education in the details of supervision.)

14. School Law.—The development and present condition of school legislation in the United States; the school laws of Illinois. I; (2). Dr. Noeton

Prerequisite: Education 1.

15. School Hygiene.—The hygienic aspects of school architecture and equipment; the hygiene of posture, exercise, and fatigue and of reading and writing; the bearing of hygienic principles upon the course of study, the daily program, and other details of administration and teaching.  $II_f$  (3). Dr. NORTON

Prerequisite: Five hours in Education.

16. Social Phases of Education.—The school as a social factor in its relation to the home, the church, and the state; the relation of education to child labor, vocation, and crime; educational extension. II; (3). Dr. Norton

Prerequisite: Five hours in Education.

23. AGRICULTURAL EDUCATION.—The place of nature-study and agriculture in the elementary and secondary school; the organization of courses and the principles and methods of teaching; literature. Observation of elementary and secondary classes. II; (3).

Assistant Professor Charles

Prerequisite: Education 1; Zoology 10, Botany 11, or the equivalent.

### COURSES FOR ADVANCED UNDERGRADUATES AND GRADUATES

4. Contemporary Educational Conditions and Movements in the United States.—The interpretation of present tendencies as exemplified in the school systems of typical cities and states and in recent educational experiments in administration, discipline, methods, and subject matter.  $I_j$  (2). Dr. Norton

Prerequisite: Education 1, 2.

5. Comparative Study of the Secondary Schools of France, Germany, England, and the United States.—The types of secondary schools in each country; origin and development; present status and relation to elementary schools and universities. II; (2). Dr. Norton

Prerequisite: Education 1, 2.

9. HISTORY OF INDUSTRIAL AND VOCATIONAL EDUCATION.—Industry and industrial training in Egypt, Greece, Rome, and the Middle Ages; the industrial revolution and its effect upon education; recent tendencies in the development of agricultural and industrial high schools, agricultural colleges, monotechnic schools, and continuation schools. II; (2).

Assistant Professor Anderson

Prerequisite: Education 1, 2, or their equivalents.

13. Educational Classics.—The sources of the history of education; educational works of Plato, Aristotle, Quintilian, Montaigne, Milton, Locke, Rosseau, Pestalozzi, Herbart, Froebel, Spencer, and others. I; (3).

Assistant Professor Anderson

Prerequisite: Education 2; Philosophy 3a, 4.

17. Herbart and Froebel.—The philosophy, psychology, and pedagogy of Herbart and Froebel.  $I_j$  (3).

Assistant Professor Anderson

Prerequisite: Education 1, 2.

18. Principles of Esthetic, Moral, and Religious Education.—Values, ideals, and methods of each; their relation to each other, to intellectual training and to the utilities of life; effects on social and national life and on the general advancement of the fine arts; selection of the material of instruction and the development of individual taste and conscience; the public school; the Sunday school; other instrumentalities. *I*; (3).

Dr. NORTON

Prerequisite: Education 2; Psychology 7.

20a. THEORY OF SUPERVISION.—The problems of supervision; the supervisor's functions in training and improving teachers. (Open only to graduate students, to seniors who are either graduates of

normal schools or experienced teachers, or who are preparing for the work of supervision in special subjects, such as household science, manual training, and physical training.) II; (3).

Professor Bagley

Prerequisite: Education 1, 6.

20b. Theory and Practice of School Supervision.—Course 20a, with the addition of a period of actual practice in the constructive criticism of teaching. II; (5).

Professor Bagley

Prerequisite: Education 1, 6.

## COURSES FOR GRADUATES

- 101. SEMINAR IN EDUCATION.—Professor BAGLEY, Assistant Professor Anderson, Dr. Norton.
- 111. Practice Teaching.—Based upon Education 11. Each graduate student taking this course selects, with the approval of the department of education, some problem of teaching upon which there is a division of opinion among educators, plans means for investigating this problem and presents a written report of his methods and results before the close of the term.

Professor Bagley, Dr. Norton

## ELECTRICAL ENGINEERING

1. ELECTRICAL ENGINEERING.—Principles of electrical machinery; selection, installation, and operation; distribution of power; motor applications. II; (2), Mr. HAKE

Prerequisite: Physics 1, 3; Mathematics 9.

3. DYNAMO ELECTRICAL MACHINERY.—Laws of electric and magnetic circuits; principles of construction and operation of direct current generators and motors. *I*; (3).

Professor Brooks, Assistant Professor Paine

Prerequisite: Physics 1, 3; Mathematics 9.

5. ALTERNATING CURRENTS.—A mathematical and graphical treatment of the principles of periodic currents; theory of the simple phenomena in transmission lines and transformers. II. (4).

Professor Brooks, Assistant Professor PAINE

Prerequisite: Electrical Engineering 3; Physics 4.

6. Alternating Currents.—Alternating current theory and practice. (For mechanical engineers.) I; (2).

Assistant Professor WALDO

Prerequisite: Electrical Engineering 16.

- 9. Lighting.—Electric lamps and other illuminants, and their effective use; interior wiring; methods of electrical distribution. (For architects.) II; for nine weeks; (1). Mr. HAKE
- 13. Seminar.—The discussion of topics from current periodicals and of scientific papers. I, II; (1). Assistant Professor Paine Prerequisite: Electrical Engineering 3, 5.
- 14. ALTERNATING CURRENTS.—Steinmetz symbolic method; alternating-current generators and motors; synchronous converters. I;
  (4). Professor Berg, Professor Brooks, Assistant Professor PAINE Prerequisite: Electrical Engineering 5.
- 16. DYNAMO-ELECTRIC MACHINERY.—Direct-current generators; motors; distribution circuits; storage batteries. Laboratory practice. (For mechanical engineers.) II; (4).

Assistant Professor Paine, Mr. Hake

17. Advanced Alternating Currents.—The effect of distributed inductance and capacity; transient phenomena. II; (4).

Professor Berg, Professor Brooks, Assistant Professor PAINE Prerequisite: Electrical Engineering 14, 24,

20. ELECTRICAL ENGINEERING LABORATORY.—(Special)—The construction of special apparatus or other work approved by the department. Elective for juniors and seniors. *I*, *II*; (1 to 3).

Assistant Professor BRYANT, Mr. WILLSON

Prerequisite: Electrical Engineering 22.

22. ELECTRICAL ENGINEERING LABORATORY.—Direct current dynamos and motors; use of measuring instruments; operation of electrical machinery; complete tests similar to those made by dynamo manufacturers. I; (2).

Assistant Professor BRYANT, Mr. WILLSON, Mr. HAKE, Mr. FISK Prerequisite: Registration in Electrical Engineering 3.

23. Electrical Engineering Laboratory.—Determination of the flux and E. M. F. waves of alternators; alternating current circuits, instruments, and machines; photometry; testing of telephones and telegraph instruments and lines. II; (2).

Assistant Professor Bryant, Mr. Willson, Mr. James, Mr. Fisk Prerequisite: Electrical Engineering 3, 22; registration in Electrical Engineering 5.

24. Electrical Engineering Laboratory.—Advanced direct and alternating current testing. I; (2).

Assistant Professor Bryant, Mr. Willson, Mr. Hake Prerequisite: Electrical Engineering 23; registration in Electrical Engineering 14.

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27. ELECTRICAL ENGINEERING LABORATORY.—Advanced alternating current testing. II; (2).

Assistant Professor Bryant, Mr. Willson

Prerequisite: Electrical Engineering 24.

28. Electrical Engineering Laboratory.—Illustration of principles; operation of dynamos, motors, and transformers. I; (1).

Mr. WILLSON, Mr. HAKE

Prerequisite: Electrical Engineering 1 or registration in Electrical Engineering 2.

- 29. ELECTRICAL ENGINEERING LABORATORY.—Alternating current operation and testing. (For students in Mechanical Engineering.) II; (2). Assistant Professor Bryant, Mr. Willson, Mr. Hake
- 32. ELECTRICAL DESIGN.—Calculation and design of electromagnets and dynamos, direct and alternating, and of transformers. I; (2).

  Assistant Professor Waldo, Mr. Fisk

Prerequisite: Electrical Engineering 3, 5.

- 34. Design of Induction Motors and Converters.—Problems in power plant design. II; (3). Assistant Professor Waldo, Mr. Fisk Prerequisite: Electrical Engineering 5, 14.
- 35. THESIS.—First semester: Preliminary reading and investigation; second semester: final work with assigned hours and credit. Subjects must be chosen and approved before the first Monday in November. II; (3).

#### COURSES FOR GRADUATES

101. ADVANCED COURSE IN ALTERNATING CURRENTS.—The theory of Transient Phenomena; polyphase circuits; alternating current measuring apparatus.

Professors Berg and Brooks, Assistant Professors Paine and Bryant

102. THE GENERATION, TRANSMISSION, AND UTILIZATION OF ELECTRICAL ENERGY.—Dynamo-electric machinery; light and power plants; switchboards and transmission lines.

Professor BERG, Assistant Professor PAINE

103. ELECTRICAL DESIGN.—The development of plans for an electrical machine or apparatus of specified character; or for the arrangement of an electrical plant.

Professor BERG, Assistant Professor WALDO

104. ELECTRICAL ENGINEERING RESEARCH.—An experimental investigation of some electrical phenomena; or tests of some electrical machine; or of a plant of such machines.

Professor Berg, Assistant Professor Bryant

105. TELEGRAPHY AND TELEPHONY.—Professor BROOKS, Assistant Professor Paine

# ENGINEERING

(See Architecture, Civil Engineering, Drawing, Electrical Engineering, Mechanical Engineering, Mechanics, Mining Engineering, Municipal and Sanitary Engineering, Physics, Railway Civil Engineering, Railway Electrical Engineering, and Railway Mechanical Engineering.

# THE ENGLISH LANGUAGE AND LITERATURE

(INCLUDING RHETORIC)

Unless otherwise specified, the second semester of courses running through the year may not be taken without the first, nor may credit ordinarily be secured for a single semester's work in such courses.

# ENGLISH LANGUAGE AND LITERATURE

#### ELEMENTARY COURSES

English 1 may not be counted toward a major, and of the other courses in this group, only thirteen hours may be so counted.

1. Introductory Course.—English Literature before the Nineteenth Century. I; (4). Assistant Professor Baldwin and others Prerequisite: The minimum entrance requirements in English.

(At least one section of this course repeated in the second semester. Seniors in the College of Literature and Arts receive only half credit for this course.)

2. Introductory Course.—English Literature of the Nineteenth Century. II; (4). Assistant Professor Baldwin and others Prerequisite: English 1.

(Seniors in the College of Literature and Arts receive only half credit for this course.)

16. AMERICAN LITERATURE.—I, II; (3).

Assistant Professor Paul, Mr. SEARS

Prerequisite: English 1, 2.

33. English Literature from 1798 to 1837.—First semester: Poetry; second semester: Prose. (Either semester may be taken without the other.) I, II; (3).

Dr. Zeitlin

Prerequisite: English 1, 2.

23. Elementary Course in Shakespeare.—Introductory to English 5. II; (3).

Associate Professor Sherman, Assistant Professor Paul, Mr. Guild

Prerequisite: English 1, 2.

19. LITERARY STUDY OF THE BIBLE.—First semester: the *Psalms*; the *Prophets* (lyric poetry and oratory); second semester: *Proverbs*, *Ecclesiastes*, and *Job* (literature of wisdom). *I*, *II*; (3).

Assistant Professor Baldwin

 $Prerequisite\colon$  Eight hours of English literature. Only seniors and juniors ordinarily admitted.

# INTERMEDIATE COURSES

29. ENGLISH LITERATURE FROM 1557 TO 1688, EXCLUSIVE OF THE DRAMA. I; (3). Assistant Professor BALDWIN

Prerequisite: Eleven hours of English literature.

31. English Literature from 1688 to 1789.—II; (3).

Assistant Professor PAUL

Prerequisite: Eleven hours of English literature.

24. English Literature of the Victorian Period.—First semester: Poetry; second semester: Prose. (Either semester may be taken without the other.) I, II; (3).

Miss Kyle

Prerequisite: Fourteen hours of English literature.

36. CONTEMPORARY WRITERS.—Prose fiction and the essay in England and the United States during the present generation; periodicals. I; (3). Professor DODGE

Prerequisite: Fourteen hours of English literature.

[Not given in 1910-1911.]

35. The Drama from 1600 to 1900.—(Either semester may be taken without the other.)  $I,\ II;\ (3).$ 

Associate Professor Sherman, Mr. Guild

Prerequisite: Fourteen hours of English literature, including English 23.

ADVANCED COURSES FOR UNDERGRADUATES AND GRADUATES

5. SHAKESPEARE AND HIS PREDECESSORS.—First semester: the Pre-Shakespearean Drama; second semester: Shakespeare. (The second semester may be taken without the first.) I, II; (3).

Professor Dodge

Prerequisite: Seventeen hours of English literature, including English 23.

7. Chaucer.—I, II; (3). Dr. Jones

Prerequisite: Seventeen hours of English literature.

4. The History and Principles of English Versification.—

4. The History and Principles of English Versification.—
Theory of English metre and rhythm; history of the development of the forms of English verse. II; (2).

Mr. Scott

Prerequisite: Seventeen hours of English literature.

[Not given in 1910-1911.]

11. The Principles of Criticism.—Theories of art; the nature and elements of literature; the meaning and purpose of criticism. I; (3).

Associate Professor Fulton

Prerequisite: Seventeen hours of English literature; Philosophy 7 (Esthetics) advised before or with this course.

[Not given in 1910-11.]

6. The History of English Literary Criticism.—Introduced by discussion of the critical principles of Aristotle, Horace, and Longinus. I, II; (3).

Associate Professor Fulton

Prerequisite: Seventeen hours of English literature.

17. THE HISTORY OF THE ENGLISH LANGUAGE.-I, II; (3).

Associate Professor Fulton

\*\*Prerequisite: Seventeen hours of English literature, or eleven hours of English literature and eight hours of French, German, or Latin.

- 8. OLD ENGLISH. (Anglo-Saxon). Grammar; prose; short poems; the first half of Beowulf. I, II; (3). Professor Dodge Prerequisite: Seventeen hours of English literature, or eleven nours of English literature and eight hours of German.
- 15. TEACHERS' COURSE.—Methods of teaching English literature and composition in the high school. I, II; (3).

Assistant Professor Paul and others

Prerequisite: Seventeen hours of English literature and nine hours of rhetoric.

#### COURSES FOR GRADUATES

101. RESEARCH IN SPECIAL PERIODS.—Competent graduate students are encouraged to seek the advice and assistance of the department of English and to submit to the department plans for study in the language or literature of the periods mentioned below.

ANGLO-SAXON LANGUAGE AND LITERATURE.

THIRTEENTH AND FOURTEENTH CENTURES.

SIXTEENTH CENTURY.

Assistant Professor Dodge
Professor Dodge
Professor Dodge
Professor Dodge
Professor Baldwin

EIGHTEENTH CENTURY.

Associate Professor Sherman, Assistant Professor Paul Nineteenth Century.

Associate Professor Fulton, Associate Professor Sherman Prerequisite: The consent of the department of English.

103. The Poetry of Milton.—Twice a week; II.

Assistant Professor Baldwin

Prerequisite: Twenty hours of English literature; English 29 advised before English 103.

109. GERMAN AND SCANDINAVIAN INFLUENCES ON ENGLISH LITERATURE OF THE EIGHTEENTH AND NINETEENTH CENTURIES.—Twice a week; I, II.

Professor Dodge

Prerequisite: Eighteen hours of English literature; two years of German; completion of or registration in Scandinavian 12.

[Not given in 1910-11.]

110. Anglo-Saxon Poetry.—Twice a week; I, II.

Professor Dodge

Prerequisite: English 8. [Not given in 1910-11.]

112. The History and Principles of English Grammar.— Twice a week; I, II.  $\,\,$  Dr. Zeitlin

Prerequisite: English 8.

[Not given in 1910-11.]

113. English Prose Syntax.—The forces (Old English, Old French, Latin) at work in the development of the English sentence; the style of important prose writers from the syntactical point of view. Twice a week; I, II.

Dr. Zettlin

Prerequisite: English 8.

126. ENGLISH BALLADS AND METRICAL ROMANCES. — Twice a week; I, II. Dr. Jones

Prerequisite: Twenty hours of English literature; completion of or registration in English 7 and Romance Languages 102.

127. MIDDLE ENGLISH.—Critical Reading. Twice a week; I, II.
Dr. JONES

Prerequisite: English 8. [Not given in 1910-11.]

136. THE TRANSITION FROM THE SEVENTEENTH TO THE EIGHT-EENTH CENTURY IN ENGLISH LITERATURE.—I, II; (3).

Assistant Professor PAUL

Prerequisite: Twenty hours of English literature.

137. NINETEENTH CENTURY PROSE WRITERS.—Twice a week; I, II.

Associate Professor Sherman

Prerequisite: Twenty hours of English literature. With the consent of the instructor Philosophy 4 and History 20 may be counted toward the fulfilment of the prerequisite.

138. THE ROMANTIC MOVEMENT IN ENGLAND.—Twice a week; I, II.

Associate Professor Sherman

Prerequisite: Twenty hours of English literature; a reading knowledge of French or German. With the consent of the instructor History 7 may be counted toward the fulfilment of the prerequisite.

139. THE HISTORY OF ENGLISH POETRY.—Twice a week; I, II.

Associate Professor Sherman

Prerequisite: Twenty hours of English literature; a reading knowledge of French.

[Not given in 1910-11.]

# RHETORIC

Unless otherwise specified, the second semester of courses running through the year may not be taken without the first, nor may credit ordinarily be secured for a single semester's work in such courses.

# ELEMENTARY COURSES

Of the courses in this group only 2 and 3 may be counted toward a major.

1. RHETORIC AND THEMES.—Required for students in the Colleges of Literature and Arts, Science, Engineering, and Agriculture. I, II; (3). Mr. Scott and others

Prerequisite: The minimum entrance requirements in English. For the benefit of those whose course is irregular, a limited number of sections in each semester will take up the work of the other semester.

2. Argumentation.—General argumentative writing; the purpose of argument; the tests of evidence and reasoning. Text-book; class discussions; assigned work. II; (3). Mr. Halliday

Prerequisite: Rhetoric 1.

3. Daily Themes.—Five short themes a week with a five-page theme every fortnight. (Only one semester of this work may be taken.) I or II; (4).

Mr. Guild, Miss Kyle

Prerequisite: Rhetoric 1.

10. Business Writing. — Business correspondence; incidental writing; summaries. (Open only to those taking a business course, unless with the consent of the instructor.) II; (2).

Professor Clark

Prerequisite: Rhetoric 1.

11. Composition and Literature.—Composition; English prose literature. (For students in the College of Engineering who elect English as their language.) II; (4).

Mr. Rainey

Prerequisite: The minimum entrance requirements in English.

#### INTERMEDIATE COURSES

20. ENGLISH COMPOSITION.—Long themes. (Not to be taken with Rhetoric 3. The second semester may be taken without the first.)

I, II; (3). Professor CLARK

Prerequisite: Rhetoric 1; eleven hours of English literature.

16. Exposition.—The expository method; analysis of masterpieces of exposition, both literary and scientific; themes. *I*; (3).

Associate Professor Fulton

Prerequisite: Two years of college work, including Rhetoric 1.

12. Newspaper Writing.—News writing; interviewing; reporting; study of news form; news value; typography; proof reading. In the second semester one section studies agricultural journalism. I, II; (2). Mr. Scott

Prerequisite: Rhetoric 1; Rhetoric 3, or one semester of Rhetoric 20.

15. Advanced Newspaper Writing.—First semester: The larger problems in reporting. Second semester: The application of the principles of history, economics, and political science, to public events; copy reading; head writing; editing; editorial writing. I, II; (3).

Mr. Scort

Prerequisite: Rhetoric 12 or some experience in reporting.

COURSES FOR ADVANCED UNDERGRADUATES AND GRADUATES

6. The Theory and Practice of Short Story Writing.— $I_j$  (3).

Mr. Guild

Prerequisite: Nine hours of Rhetoric, including Rhetoric 3, or one semester of Rhetoric 20, and fourteen hours of English literature.

17. ENGLISH COMPOSITION .-- II; (3).

Associate Professor Sherman

Prerequisite: Nine hours of rhetoric, including Rhetoric 3, or one semester of Rhetoric 20, and seventeen hours of English literature. [Not given in 1910-11.]

#### PUBLIC SPEAKING

Unless otherwise specified, the second semester of courses running through the year may not be taken without the first, nor may credit ordinarily be secured for a single semester's work in such courses.

## ELEMENTARY COURSES

Only one of these courses may be counted toward a major.

7. Public Speaking.—Reading aloud, with occasional memory work; lectures; class exercises; private instruction. I, II; (2).

Men's sections, Mr. Halliday, Mr. Pearce; women's sections, MISS LANDEE

Prerequisite: The minimum entrance requirements in English.
(Seniors in the College of Literature and Arts receive only half credit for this course.)

13. Intercollegiate Debating.—The propositions to be discussed in the four intercollegiate debates. (Those who wish to take part in the debates and get credit for their work must register for this course.) I, II; (2).

Mr. Pearce

Prerequisite: The minimum entrance requirements in English.

#### INTERMEDIATE COURSES

4. The Art of Debate.—Brief writing and the extemporaneous presentation of argument in formal debate. I, II; (2).

Mr. HALLIDAY

Prerequisite: Rhetoric 1, 7. Rhetoric 2 desirable.

5. Extempore Speaking.—Current events; after-dinner speaking; parliamentary procedure. I, II; (2). Mr. Halliday

Prerequisite: Rhetoric 1, 7.

14. ORATORICAL COMPOSITION AND DELIVERY.—The principles underlying effective discourse; text-book and discussions. (Those who intend to enter the oratorical contests should take this course.)

I; (3).

Mr. Pearce

Prerequisite: Rhetoric 1, 7.

8. Interpretative Reading.—I; (3). Mr. Guild Prerequisite: Rhetoric 7.

9. Dramatic Reading.—The study and presentation of a classic play or of special scenes. II; (1-4). Mr. Guild Prerequisite: One year of college work; consent of the instructor.

## ENTOMOLOGY

Entomology as taught at the University is distinctly differentiated from the work in zoology. Students preparing for service as economic entomologists should take all the courses offered except Course 5. Those preparing for the teaching of zoology should take either 2 and 4, or 3 and 4, or all three of these courses.

- 1. Elementary Entomology.—Lectures; laboratory; field work. (Open to all students.) I, II; (2). Assistant Professor Folsom
- 2. General Entomology.—Field entomology; morphological and physiological entomology; the collection and preservation of specimens; laboratory studies of typical insects; the recognition of adaptive structures and their utilities. (This course and course 3 form a year's work, covering the whole field. Either may be taken independently of the other.) I; (5). Assistant Professor Folsom Prerequisite: Entomology 1, or 4, or equivalent.

3. General Entomology.—The classification and determination of insects; the study of life histories in the insectary and by field observation; the collection of information with respect to the ecological relations of insects. II; (5). Assistant Professor Folsom

Prerequisite: Entomology 1, 2, or 4.

- 4. Introduction to Economic Entomology.—Lectures; field work; laboratory. Section A for students of agriculture. I; first half; (2½). Section B, for students of horticulture. II; second half. (2½).

  Assistant Professor Folsom
- 5. Advanced Entomology.—Preparation for thesis work. (A three-hour course for one semester is required as a preparation for entomological thesis work.) I or II; (3 to 5).

Professor Forbes and Assistant Professor Folsom Prerequisite: Entomology 2, 3. 6. Thesis Investigation.—Subjects selected during the junior year. Three hours a day given to investigation, under the supervision of an instructor, during the senior year. I, II; (5).

Professor Forbes, Assistant Professor Folsom

Prerequisite: A three-hour course in Entomology 5.

7. Systematic Entomology.—The system of classification; the aims and methods of classification; the nature of species, genera, and other groups; the rules of nomeuclature; the preparation of taxonomic articles, involving the study of bibliography, synonymy, and analytical keys. Lectures; laboratory. (A general course for students of biology; to qualified students the material of the State Laboratory of Natural History is available.) I, II; (3).

Assistant Professor Folsom

Prerequisite: A semester course in zoology or entomology.

8. Advanced Economic Entomology.—To prepare students for service as economic entomologists in state and government positions. Agronomy 7 and Horticulture 1, 2, and 3 should also be taken as a part of this preparation. Lectures; recitations; laboratory; field work. I, II; (3). Professor Forbes, Assistant Professor Folsom Prerequisite: Entomology 2, 3, 4.

# COURSES FOR GRADUATES

After at least one year of biological work, graduates may elect courses 2, 3, 5, 7, and 8. The following are open to graduate students only.

103. FAUNISTIC ENTOMOLOGY.—Problems in taxonomy, distribution, and ecology. Field work; conference; lectures. (The operations of the office of the State Entomologist and of the State Laboratory of Natural History afford opportunities to students in this course.) I, II.

Professor Forbes and Assistant Professor Folsom

108. INDIVIDUAL RESEARCH COURSE.—Morphological, systematic, ecological, and physiological entomology.

Professor Forbes and Assistant Professor Folsom

# THE FINE ARTS

(See ART AND DESIGN and MUSIC. Attention is called also to the courses in Esthetics offered by the departments of philosophy, education, architecture, and household science.)

#### FLORICULTURE

(See Horticulture.)

# FRENCH

(See ROMANCE LANGUAGES AND LITERATURE.)

# GEOLOGY

The department of geology includes the offerings in mineralogy, paleontology, and physical geography, as well as those in geology proper.

This department occupies a suite of twenty three rooms on the first and second floors of the Natural History building. Its laboratories and lecture rooms are equipped with the apparatus and illustrative material necessary to carry on the work scheduled below. The equipment for the study of crystallography, mineralogy, and economic geology is especially good. The department is also supplied with maps, charts, projection apparatus, and field and laboratory instruments for surveying and mapping.

The collections in mineralogy, petrography, and paleontology are large and well selected. The last is rich in the fossil forms which occur in the Mississippi Valley and the library is well supplied with the literature essential to their study.

The offices and laboratories of the State Geological Survey adjoin those of the department and a portion of the instructors are also engaged in work for the Survey, while others are cooperating with the United States Geological Survey, thus giving advanced students the advantages which are to be gained from close contact with practical work.

To students who are especially interested in geology the department offers three lines of work, and recommends that the courses be taken in the order indicated below.

MINERALOGY, PETROGRAPHY, ECONOMIC GEOLOGY.—For those who care particularly for minerals and rocks, their identification, origin, and transformations; the origin, characteristics and classification of ores and the economic qualities of non-metallic minerals, it is recommended that the following courses be taken in the order given: Geology, 19, 1, 1a, 5, 6, 7, 16, 15, 2.

STRATIGRAPHY, PALEONTOLOGY.—If the student cares more for the history of rocks, the order in which they were laid down, the conditions which gave them their peculiarities, and the evolution of living forms as shown by the succession of fossils, the following order of courses is suggested: 19, 1, 1a, 9, 16, 5, 18, 20, 15, 4.

Physiographic Geology, Physical Geography.—If his interest lies more in the earth's surface, the origin of its topographic forms, the agencies which are transforming them, and the influence of these upon the welfare of plants, animals and man, the following courses are advised, in order: 19, 14, 10, 5, 1a, 11, 8, 20, 17, 4. These courses will be of especial interest to prospective teachers of physiography.

The attention of students who can devote but one or two semesters to the subject is directed to the following courses: For engineers, 3, 5, 13; for agriculturists, 12, 14, 8, 11; for students in commerce, 3, 14, 8; for students in literature and science, 3, 1, 1a, 10, 14, 8, 11.

## COURSES FOR UNDERGRADUATES

GENERAL GEOLOGY.—The agents and processes involved in the development of the earth's present features. Lectures; laboratory.
 Assistant Professor Savage

Prerequisite: Chemistry 1 or an equivalent.

1a. Historical Geology.—The evolution of the earth and its life. Lectures; laboratory work, consisting largely of a study of a few of the more characteristic fossils from the various horizons. (Continuing course 1 and introducing courses 9 and 16.) II; (5).

Assistant Professor Sayage

Prerequisite: Geology 1, 3, or 10.

2. ECONOMIC GEOLOGY.—The origin and manner of occurrence of minerals and rocks of economic importance, especially those found in North America. Lectures; laboratory. II; (5).

Associate Professor BAYLEY

Prerequisite: Geology 5; 1 and 1a, or 3.

3. ELEMENTS OF GEOLOGY.—Mineralogy; dynamic, historic, and economic geology; minerals; rocks; contour maps; fossils. Recitations; laboratory. (For students who wish to devote but one semester to geology.) I; (5). Daily, with occasional trips on Saturday.

Professor Rolfe, Dr. BAGG

- 4. Thesis Course.—Field or laboratory problems; complete reports under the direction of an instructor; maps, sections, and figures based on observations. II; (5).
- 5. MINERALOGY.—An introduction to petrography and economic geology; the most common ores and minerals of scientific importance; the elements of crystallography; the characteristics of about 125 of the most important minerals; blow pipe analysis. Lectures; laboratory. I; (5).

  Associate Professor Bayley

Prerequisite: Chemistry 1, 2, 3.

6. Physical and Optical Mineralogy.—A direct introduction to petrography. The physical and optical properties of minerals; the practical use of polarized light in identifying the rock-forming materials. II; (3).

Associate Professor Bayley

Prerequisite: Geology 5.

- 7. Petrography.—The study of rocks; their types; origin; classification; the types studied with hand specimen and thin section.

  Lectures; laboratory,  $I_j$  (3).

  Associate Professor Bayley Prerequisite: Geology 6.
- 8. Physical Geography.—Physiography of Europe, with selected regions in the Americas, Asia, and Africa. The physical conditions which control the production of the principal commodities used by man. (Recommended to students in commerce; supplementary to course 11.)  $II_j$  (3). Mr. Hutton

Prerequisite: Geology 14.

9. Paleontology.—Paleozoic invertebrate fossils; their classification and relationships; identification of the fossils; the literature of the subject. Lectures; laboratory. I; (5).

Assistant Professor Savage

 $\label{eq:precequisite:} Prerequisite: \ \ \mbox{Geology 1a; recommended: 1 year of botany or zoology.}$ 

- 10. Physiographic Geology.—The origin, modification, and destruction of geographic forms; the relation of these forms to underlying geologic structure. (This course, together with Meteorology (No. 14), will be of special interest to those who expect to teach physical geography.) II; (5). Daily, with occasional trips on Saturday.

  Professor Rolff, Mr. Hutton
- 11. Physiography of the United States.—The topography, climatology, and economic geography of the United States and contiguous portions of Canada and Mexico.  $I_{\mathcal{F}}$  (5). Mr. Hutton Prerequisite: Geology 14 and 1, or 3, or 10.
  - 12. Geology of Soils.—The origin of the various classes of soils;

mineral composition; physical characteristics; transformations. (Particularly valuable to students of agriculture and all those who are especially interested in plant growth.) II; (5).

Professor Rolfe, Dr. Bagg

Prerequisite: Chemistry 1 or an equivalent.

13. Engineering Geology.—(Planned especially to meet the needs of engineering students; open only to students in engineering and ceramics.) Lectures; laboratory. II; (5).

Associate Professor BAYLEY, Dr. BAGG

14. METEOROLOGY. — Meteorology; oceanography; climatology. The general circulation of the atmosphere; ocean currents; the laws of storms; the distribution of rainfall; the climatic conditions which control the geographic distribution of plants and animals. (This course is a prerequisite for Geology 8.)  $I_j$  (3).

Professor ROLFE, Mr. HUTTON

Courses 14 and 8 should be taken with Economics 26 by students of commerce.

15. Structural Geology.—The arrangement of the rocks which form the earth's crust and their distribution on its surface; mountains; faults; folds; other diastrophic phenomena. I; (5).

Dr. BAGG

Prerequisite: Geology 1a.

16. Stratigraphy.—The methods and criteria employed in the correlation of strata; the distribution of the successive geologic formations; the characteristic invertebrate faunas contained. Lectures; laboratory.  $II_j$  (5). Assistant Professor Savage

Prerequisite: Geology 9.

17. CONTINENTAL EVOLUTION.—The development of continents; the distribution of the strata of the successive geological systems; the character and variations of the sediments in each period with their faunas; the distribution of lands and seas, and their relative altitude in geologic ages. I; (5).

Assistant Professor Savage Prerequisite: Geology la or 11.

18. MESOZOIC AND TERTIARY PALEONTOLOGY.—The mesozoic and tertiary invertebrate fossil forms; the evolution of vertebrates during the same periods. (For students specializing in botany or zoology.) II; (5).

Dr. Bage

Prerequisite: Geology 1a, 9; or 10 credits in botany or zoology.

19. FIELD GEOLOGY—INTRODUCTORY COURSE.—Field trip of two weeks, in September, 1911, introductory to the courses in general geology and physiography. Including points in Indiana, Ohio, and the Wyandotte or Mammoth Cave, to illustrate the marked difference between the physiographic features of youthful and mature topography and of glaciated and non-glaciated areas; collection of fossils from the different rock exposures; their use in determining the age of strata. (Expenses about \$35.00.) Credit given on completion of a semester course in geology and on submission of written report on the observations and collections made during the trip. I; (2).

Assistant Professor SAVAGE, Mr. HUTTON

- 20. FIELD GEOLOGY.—A short field course in geology (June 12 to 30, 1911). The field determination of physical features and rock formations, with mapping and description, of a small area in Carroll county, Illinois.

  Assistant Professor Savage
- 21. Geology of Coal.—The principal coal making plants; the origin of coal and its varieties; the schemes for the classification of coals; coal sampling; the stratigraphy of the coal measure deposits, with especial reference to the Illinois or Eastern Interior basin. (For students in mining engineering.) I; (3).

Assistant Professor Savage, with special helpers

Prerequisite: Geology 13, or its equivalent.

# COURSES FOR GRADUATES.

Graduate students who are doing their principal work in other departments before taking work for graduate credit in Geology must have had the equivalent of 10 sequential University credits in Geology, 10 in Chemistry, and 8 in Physics.

Students who are candidates for an advanced degree in Geology must have had the equivalent of 20 sequential University credits in Geology, 10 in Chemistry, 8 in Physics, and if the work is to be along the lines of stratigraphy or paleontology, 10 in Zoology or Botany.

- 101. Advanced Crystallography.—The methods of measuring, projecting, and calculating crystal forms; the physical properties of crystallized bodies; indices of refraction; electrical properties; morphotropism.

  Associate Professor Bayley
- 102. Petrography.—The igneous rocks; identification of types; classification: relationships. Lectures: laboratory. I.

Associate Professor BAYLEY

103. Petrography.—Schists and sedimentary rocks. II.

Associate Professor BAYLEY

- 105. STRATIGRAPHIC PALEONTOLOGY.—The literature and fossils of a special geological system; their geographic distribution; the geologic provinces; the origin and the routes of migration of the different faunas during the period. Largely individual work. Time to be arranged.

  Assistant Professor SAVAGE
- 106. FIELD AND LABORATORY COURSE.—A systematic study of a selected area; collection of specimens and working out stratigraphic and structural relations in the field and their interpretation; a carefully prepared report on the geology of the region, based on the data collected in the field.

  Assistant Professor Savage

# THE GERMANIC LANGUAGES AND LITERATURE

## GERMAN

# FIRST-YEAR COURSES

Assistant Professor MEYER is in general charge of these courses.

- ELEMENTARY COURSE.—Grammar and easy reading. I; (4).
   Assistant Professor Meyer, Miss Blaisdell, Dr. Poor, Dr. Williams, Mr. DeVries, Mr. Koller, Mr. Barto
- 3. NARRATIVE AND DESCRIPTIVE PROSE.—Grammar and syntax; reading of easy texts; exercises in prose composition. II; (4).

Assistant Professor Meyer, Miss Blaisdell, Dr. Poor, Dr. Williams, Dr. Bloomfield, Mr. Devries, Mr. Koller, Mr. Barto Note.—Three sections of German 3 will be offered in the first semester.

Prerequisite: German 1, or one year of high school German.

# SECOND-YEAR COURSES

Assistant Professor Brooks is in general charge of these courses.

4. DESCRIPTIVE AND HISTORICAL PROSE.—Selections from standard prose writers; sight reading; prose composition. I; (4).

Assistant Professor Brooks, Miss Blaisdell, Dr. Poor, Dr. Williams, Dr. Bloomfield, Mr. Devries, Mr. Koller

Prerequisite: German 1 and 3, or two years of high school German. Note.—Three sections of German 4 will be offered in the second semester.

5. Introduction to the Classics.—Schiller's Jungfrau von Orleans; Goethe's Hermann und Dorothea; or others of the classics. Prose composition. II; (4).

Assistant Professor Brooks, Miss Blaisdell, Dr. Poor, Dr. Williams, Dr. Bloomfield, Mr. DeVries, Mr. Koller

Prerequisite: German 4.

 Scientific Prose.—The rapid reading of works of a general scientific character. II; (4).

Dr. Poor, Dr. Williams, Mr. DeVries

Prerequisite: German 4.

#### THIRD-YEAR COURSES

Not more than ten hours of these courses may be counted towards a major without the approval of the head of the department.

Modern Fiction.—Rapid reading of works by modern writers:
 Hauff; Freytag; Keller; Storm. (Open only to freshmen.) I; (3).
 Assistant Professor Brooks, Dr. WILLIAMS

Prerequisite: Three (or four) years of high school German.

14. Introductory Schiller Course.—Reading of works illustrating different periods in Schiller's development: Kabale und Liebe; Don Carlos; Braut von Messina. (Not open to freshmen.) I; (3).

Assistant Professor Brooks

Prerequisite: German 5 or its equivalent.

24. Modern Drama.—Rapid reading of dramas by Grillparzer, Hebbel, Hauptmann and others. (Not open to freshmen.) I; (3).

Dr. Poor

Prerequisite: German 5 or its equivalent.

28. German Lyrics.—First semester: The chief lyric poets of the classical period. Second semester: The chief lyric poets of the nineteenth century. The form, development, and different types of the lyric. (Each semester may be taken separately, although students are not advised to take the second without the first. Not open to freshmen.) I, II; (2).

Assistant Professor Meyer

Prerequisite: For first semester, German 5 or equivalent; for second semester, German 14 or 24, or first semester of 16 or 28.

16. Intermediate Prose Composition.—Translation of ordinary prose into German; study of idiomatic construction; practice in rendering at sight. Conducted as far as possible in German. I, II; (2).

Miss Blaisdell, Dr. Poor, Dr. Bloomfield

Prerequisite: German 5 or equivalent.

10. Introductory Goethe Course.—Reading of works illustrating different periods in Goethe's development: Götz von Berlichingen; Egmont; Iphigenie auf Tauris; selections from Dichtung und Wahrheit. II; (3).

Assistant Professor Meyer, Assistant Professor Brooks

Prerequisite: German 13, or 14, or 24, or first semester of 16.

15. Critical and Historical Prose.—Reading of selections from standard writers dealing with important phases of German history, literature, and culture. (Not open to freshmen.) II; (3).

Dr. WILLIAMS

Prerequisite: German 14, or 24, or first semester of 16 or 28.

# PRIMARILY FOURTH-YEAR COURSES

8. Schiller.—The life of Schiller; Wallenstein and other selections. I; (3).

Associate Professor Lessing

Prerequisite: German 10, or 24, or 28, or 29.

9a. GOETHE'S FAUST.—The Faust legend and early Faust books and plays; the genesis of Goethe's Faust; reading of both parts. I, II; (2)

Professor GOEBEL

9b. GOETHE-SCHILLER.—Interpretation of Goethe's poems. Goethe's Tasso and Schiller's Ueber naive und sentimentalische Dichtung. 1, II; (2).

Professor GOEBEL

[Omitted in 1910-11.]

26. German Literature Before the Reformation.—Lectures; recitations; reports on assigned reading. I; (3).

Associate Professor Lessing

Prerequisite: German 10, or 24, or 28.

11. German Literature After the Reformation.—Lectures; recitations; reports on assigned collateral reading. II; (3).

Associate Professor Lessing

Prerequisite: German 26.

25. Teachers' Course.—Discussion of methods; examination of text-books. (Open to seniors and special students who have 20 hours' credit in German.)  $II_j$  (2). Assistant Professor Brooks

Prerequisite: First semester of German 29 or equivalent; completion of or registration in Education 1 or equivalent.

- 27. Lessing.—The life of Lessing; Nathan der Weise; Emilia Galotti, and other selections. II; (3). Associate Professor Lessing Prerequisite: German 8, or 10, or first semester of 9 or 29.
- 29. Advanced Prose Composition.—Themes on Germany and German life, based on suitable reading, discussed in German. I, II; (2).

  Mr. Koller

Prerequisite: German 16.

Courses 9, 11, and 29 are especially recommended to all candidates for graduate scholarships in German; these same courses, together with Course 25, are recommended to all seniors who expect to teach German.

# COURSES FOR GRADUATES

- 101. SEMINAR IN GERMAN PHILOLOGY. First semester: Klopstock's Oden; second semester: Hölderlin. Results of value may be published in the Journal of English and Germanic Philology. I, II.

  Professor Goebel.
- 103. Introduction to the Historical Study of the Germanic Languages.—History of German Philology; comparative grammar of the Old Germanic dialects. (Lectures; discussions of special topics.) II.

  Professor Goebel
  - 104. GOTHIC.—Grammar and literature. I. Professor Goebel
- 105. OLD HIGH GERMAN.—Grammar and interpretation of the oldest literary documents. II. Dr. BLOOMFIELD
- 106. MIDDLE HIGH GERMAN.—Grammar and interpretation of selected texts. (Open to seniors; especially recommended to candidates for teachers' certificates.) I. Professor Goebel
- 109. Goethes und Schillers philosophische Weltanschauung. I, II. Professor Goebel
- 110. EARLY GERMAN DRAMA.—The development of the German drama up to the Reformation; the medieval religious drama; the Shrovetide plays; the beginning of the Humanistic drama. *I.*

Assistant Professor Brooks

- 113. German Literature of the Fifteenth and Sixteenth Centuries.—The literature on the background of the general history of the time. Luther and the Reformation; Mastersingers and Folksong; the Reformation drama; Hans Sachs; Brant; Fischart; the chap books; the English comedians. II. Assistant Professor Brooks
- 115. History of German Literature from Goethe's Death to the Present Time.—I, II. Associate Professor Lessing
  - 116. HISTORY OF LITERARY CRITICISM IN GERMANY.—II.

Associate Professor Lessing

[Omitted in 1910-1911.]

117. History of German Literature During the Eighteenth Century.—I. Professor Goebel

[Omitted in 1910-1911.]

118. Studies in the History of the German Drama with Special Reference to Kleist and Grillparzer.—I, II.

Associate Professor Lessing

[Omitted in 1910-1911.]

119. THE GERMAN NOVEL .- Research course. I, II.

Associate Professor Lessing

121. GUDRUN.-Lectures and interpretations.-II.

Professor Goebel

124. HISTORY OF THE DRAMA.—The beginnings and earlier development of the drama, and its development in the eighteenth century. I.

Assistant Professor MEYER

# THE SCANDINAVIAN LANGUAGES AND LITERATURE

UNDERGRADUATE COURSES, NOT OPEN TO FRESHMEN

1. ELEMENTARY NORWEGIAN.—Principles of the grammar; reading; introduction to the literature.

Assistant Professor Flom

[Omitted in 1910-1911; given in 1911-1912.]

- 2. ELEMENTARY SWEDISH.—Principles of the grammar and the reading of easy prose; Selma Lagerlöf's En Herrgårdssågen; Nyblom's Det Ringer; Runeberg's Fünrik Ståls Sägner. Second semester: Lectures on Runeberg, Strindberg, and Selma Lagerlöf. I, II; (2 or 3).

  Assistant Professor Flom
- 3. Ibsen's Brand and Peer~Gynt.—Advanced Norwegian. Interpretation of the two dramas; the language and style. Brand, Olsen's ed.  $I_{f}$  (2). Assistant Professor Flom

Prerequisite: Course 1, or the equivalent.

4. ESAIAS TEGNÉR.—Tegnér's Frithjofs Saga; its genesis, development, and influence. Lectures on Swedish romanticism and "The Gothic School." Assistant Professor Flom

[Omitted in 1910-1911; given in 1911-1912.]

- 5. Henrik Ibsen.—Early influences in Ibsen's life; the development of his art and his view of life; his dramatic technique as illustrated in one of his later dramas. For 1910-1911, Brand; The Pillars of Society; Ghosts. Lectures; interpretation of selected works. (Archer's translation; a knowledge of Norwegian not presupposed.) II; (2).

  Assistant Professor FLOM
- 12. Norse Mythology.—Primitive religion; the religious belief of the Norseman in pre-Christian times; origin and meaning of the principal myths. (Knowledge of a Scandinavian language not required.) I; (2).

  Assistant Professor Flom

COURSE FOR ADVANCED UNDERGRADUATES AND GRADUATES

11. Survey of the History of the Swedish Language and Literature.—Lectures.

[Omitted in 1910-1911; given in 1911-1912.]

#### GRADUATE COURSES

- 101. OLD NORSE.—Introduction to the language as a member of the Germanic group; reading of the *Volsungasaga* with selections from the herois lays. *I, II.*Assistant Professor FLOM
- 102. OLD DANISH.—Introduction to the language. Bertelsen's Dansk Sproghistorisk Lusebog and Olrik's Danske Folkeviser i Udvalg. II.

  Assistant Professor FLOM
- 103. OLD SWEDISH.—Introduction to the language. Noreen's Altschwedische Grammatik and Lesebuch. II.

Assistant Professor FLOM

110. ADVANCED OLD NORSE.—All the lays of the Elder Edda; selections from the Dhidhrekssaga. I, II.

Assistant Professor FLOM

# GREEK

(See THE CLASSICS.)

# HISTORY

Students who expect to teach history or to make that subject a major are advised to take during their freshman year History 1 and 11. For the sophomore year History 3 and 23 are recommended. During the junior and senior years students may select courses from groups B and C, in accordance with their individual tastes and interests. For students who expect to teach in secondary schools some work in ancient history is also important. Students who desire to prepare for advanced work are strongly urged to acquire a good knowledge of foreign languages. Latin, French, and German are especially useful.

# A. COURSES OPEN TO FRESHMEN

(Seniors taking these courses may receive half credit only.)

1. Continental European History.—Europe from the fourth century to the present time. (The work of neither semester may be taken separately without special permission.)  $\vec{I}$ , II; (4).

Professor FORD, Dr. PAETOW, Mr. MELVIN, Miss BRUSH

11. HISTORY OF ENGLAND TO 1589.—(This course may be combined with English economic history, Economics 7, or continental European history, History 1.) II; (3).

Assistant Professor Larson

# B. UNDERGRADUATE COURSES NOT OPEN TO FRESHMEN

3. HISTORY OF THE UNITED STATES.—First semester: The colonial era; the Revolution; genesis of the federal constitution. Second semester: The United States under the constitution. (The work of either semester may be taken separately.) I, II; (3).

Professor Greene, Assistant Professor Robertson, Mr. Phillips Prerequisite: One year of college work.

- 5. HISTORY OF GREECE.—See Greek 20.
- 6. HISTORY OF ROME. See Latin 19.
- 7. THE REVOLUTIONARY AND NAPOLEONIC ERA.—French conditions in the eighteenth century before 1774; the events between 1774 and 1789 which precipitated the revolution in France; the reform work of the early revolution; the Napoleonic regime in France and Europe. I; (3).

  Professor Form

Prerequisite: History 1.

20. EUROPE IN THE NINETEENTH CENTURY.—The national movements of the nineteenth century and the European conditions which form the basis of modern world politics. II; (3).

Professor FORD

Prerequisite: History 1.

23. HISTORY OF MODERN ENGLAND.—The colonial and imperial phases of English history. (A continuation of History 11.) I; (3).

Assistant Professor Larson

Prerequisite: History 1 or 11.

28. THESIS.—(For candidates for honors and for other seniors who wish special training in investigation.) I, II; (2).

Assistant Professor Robertson and other members of the department

# C. COURSES FOR GRADUATES AND QUALIFIED UNDERGRADUATES

4. The Constitutional History of England.—First semester; Institutional origins. Second semester: Modern constitutional practice. (For students who wish to specialize in English history, political science, or law.) I, II; (3). Assistant Professor Larson

Prerequisite: History 1; or 11 and 23.

8. Medieval Culture.—The strife over investitures; the Crusades; the rise of universities, the vernacular literatures; the development of Gothic architecture; scholasticism. The lives of Abelard, John of Salisbury, Roger Bacon, and Thomas Aquinas, illustrating the culmination of medieval culture. Lectures; readings; reports. 1; (3).

Dr. Paetow

Prerequisite: History 1.

9. The Era of the Renaissance.—The Italian Renaissance and Northern Humanism. II; (3). Dr. Paetow

Prerequisite: History 1.

13. AMERICAN HISTORY, 1760-1783.—The colonies in 1760; the controversy with the mother country; the American Revolution; the formation of the state and federal systems. *I*; (3).

Professor GREENE

Prerequisite: History 3.

[Not given in 1910-11.]

14. The Making of the Federal Constitution.—An intensive study, based upon original material, of the events from 1783 to 1789, which resulted in the framing and ratification of the federal constitution.  $I_j$  (3). Professor Greene

Prerequisite: History 3.

15. The Civil War and the Reconstruction of the Southern States.—II; (3). Professor Greene

Prerequisite: History 3.

17. THE HISTORY OF ILLINOIS.—The development of a typical commonwealth in the Middle West. I; (2).

Associate Professor ALVORD

Prerequisite: History 3.

18. The Teaching of History.—The practical problems of historical teaching in secondary schools. (Open to seniors and graduates only.) \*II; (2).

Assistant Professor Larson, assisted by other members of the department

Prerequisite: History 1 and 3 or their equivalents.

AMERICAN HISTORY, 1820-1860.—Selected topics in social and political history. II; (3).
 Professor Greene

Prerequisite: History 3.

[Not given in 1910-11.]

26. THE MODERN HISTORY OF SPAIN.—The early history of Spain; the modern period; Spanish colonization in America. I; (3).

Assistant Professor ROBERTSON

Prerequisite: History 1.

27. THE HISTORY OF LATIN AMERICA AND THE PHILIPPINES.—First semester: The discovery and exploration of the New World; the settlement, administration, and civilization of the Latin-American colonies; the struggles for independence. Second semester: The history of the leading Latin-American countries since their separation from Europe. I, II; (3).

Assistant Professor ROBERTSON

Prerequisite: History 3.

## D. COURSES FOR GRADUATES

101. SEMINAR IN AMERICAN HISTORY.—I, II.

Professor Greene and Associate Professor Alvord

102. SEMINAR IN ENGLISH HISTORY .-- I, II.

Assistant Professor Larson

103. HISTORICAL BIBLIOGRAPHY, CRITICISM, AND METHODOLOGY.—
(Required of all candidates for an advanced degree in history who do not present evidence of similar training elsewhere.) I, II.

Dr. Paetow, assisted by other members of the department

- 104. SEMINAR IN MODERN EUROPEAN HISTORY.—The influence of the French Revolution in Germany. I, II. Professor Ford
- 105. THE HISTORY OF WESTERN EXPANSION, 1763-1818.—Various problems in the interpretation of Western history. I, II.

Associate Professor ALVORD

- 106. The Formation and Development of Brandenburg-PRUSSIA FROM 1640 to 1786.—I, II. Professor Ford
- 107. Selected Topics in the History of the Nineteenth Century.—I, II. Professor Ford
- 108. FRENCH INSTITUTIONAL HISTORY DURING THE SEVENTEENTH AND EIGHTEENTH CENTURIES.—I. Associate Professor Alvord
  - 109. FRENCH COLONIES IN AMERICA .-- II.

Associate Professor ALVORD

110. The Spanish-American Revolution.—The movements which culminated in the independence of the Spanish-American states, I. Assistant Professor Robertson

111. SPANISH-AMERICAN DIPLOMACY.—The problems in the relations of the leading Spanish-American states with Europe and the United States. II. Assistant Professor Robertson

History 110 and 111 are open only to students who possess a reading knowledge of the Spanish language.

112. SELECTED TOPICS IN THE HISTORY OF THE AMERICAN COL-ONIES IN THE EIGHTEENTH CENTURY.—American society on the eve of the Revolution. II. Professor Greene

# HORTICULTURE

1. PRINCIPLES OF FRUIT GROWING.—Location with reference to climate and markets; planting; soil treatment; pruning; protection from insects and diseases; harvesting; marketing. Recitations; reference readings; practical exercises. *I*; (5).

Associate Professor LLOYD

- 2. SMALL FRUIT CULTURE.—The strawberry; raspberry; blackberry; dewberry; currant; gooseberry; cranberry. History; importance and extent of cultivation; soil; location; fertilizers; propagation; planting; tillage; pruning; insect enemies; diseases; varieties; harvesting; marketing; profits. Recitations and reference readings. II; (2).

  Associate Professor LLOYD
- 3. Vegetable Gardening.—The cultural requirements of each of the common vegetables. Text book; one practical exercise a week. II; (3). Associate Professor Lloyd, Mr. Durst
- 4. Plant Houses.—Construction, cost, and maintenance; heating; ventilating. II; (3). Mr. Dorner
- 5. PLANT PROPAGATION.—Grafts; buds; layers; cuttings; seeds. Lectures; laboratory; quizzes. II; (5).Mr. Dorner, Mr. Nehrling
- 6. Nursery Methods.—Some details of nursery management and their relation to horticulture in general. Lectures; reference readings. II; first half; (2½).

  Mr. Bailey

Prerequisite: Horticulture 1, 5; Entomology 4.

7. Spraying.—Materials, appliances, and methods employed in the combating of insects and fungus diseases. Recitations; reference readings; laboratory; field work. II; second half; (2½).

Associate Professor Lloyd

Prerequisite: Horticulture 1; Entomology 4; Chemistry 1.

8. ORCHARDING.—Pomaceous and drupaceous fruits; management of large commercial orchards; harvesting; grading; packing; storing;

marketing. Laboratory practice in identification and description of varieties; judging fruit exhibits. II; (5).

Associate Professor Crandall, Mr. Bailey Prerequisite: Horticulture 1; Botany 1 or 11.

9. FORESTRY.—Forest trees; uses; distribution; artificial production; relations of forest and elimate; forestry legislation and economy. II; (2).

Professor Burrill

Prerequisite: Botany 11, or an equivalent.

10a. LANDSCAPE GARDENING.—Problems; plant studies; home surroundings. (Preliminary course; required of agricultural students; open to all students.)  $I_{i}$  (3).

Mr. Brandt

Prerequisite: One year of University work or special preparation.

10b. Landscape Gardening.—A continuation of course 10a. II;
(3). Mr. Brandt

Prerequisite: Horticulture 10a.

11. Study of Cultivated Plants.—The relationships and classification of certain economic and ornamental plants of the temperate zone; identification of species; examination of living plants and herbarium specimens. Lectures; assigned readings. I; (2).

Professor Blair, Associate Professor Crandall

Prerequisite: Botany 2.

12. EVOLUTION OF HORTICULTURAL PLANTS.—History, botanical classification, and geographical distribution of cultivated plants; modification of plants under culture; variation in plants; theoretical causes, and observed factors that influence variation, particularly food supply, climate and cross-fertilization. I; second half;  $(2\frac{1}{2})$ .

Associate Professor CRANDALL

Prerequisite: Two years of University work, including Horticulture 1 and Botany 2.

13. VITICULTURE—The grape and its products. I; second half; (2½). Associate Professor Crandall

Prerequisite: Horticulture 1, 5.

14. Nut Culture.—The cultivation and management of nutbearing trees for commercial purposes. II; first half;  $(2\frac{1}{2})$ .

Associate Professor CRANDALL

Prerequisite: Horticulture 1, 5.

15a. Principles of Plant Growing.—Preparation of soils for greenhouse crops; fertilizers; potting and shifting plants; watering. Lectures; practical greenhouse work. II; (5). Mr. Dorner

Prerequisite: Horticulture 4, 5; Botany 2.

15b. Commercial Crops.—Greenhouse plants and cut flowers for wholesale and retail markets; the care and marketing of the crops. I; (5). Mr. DORNER

Prerequisite: Horticulture 15a.

16. GENERAL HORTICULTURE.—Fruit-growing; vegetable gardening; floriculture; ornamental planting. (For students not registered in the College of Agriculture.) *I*; (5).

Associate Professor Crandall, Associate Professor Lloyd, Mr. Dorner

17. COMMERCIAL HORTICULTURE.—Work in houses, orchards, and gardens. (For students intending to follow horticulture as a business.) I or II; (5).

Associate Professor LLOYD, Associate Professor CRANDALL Prerequisite: Special permission to register.

18. Experimental Horticulture.—Methods and difficulties in horticultural investigations; the planning of experiments; recording and interpretation of results. (For advanced students preparing for experiment station work.) II; (5).

Professor Blair, Associate Professor Crandall, Associate Professor Lloyd

Prerequisite: Twenty hours' work in horticulture.

- 19. Amateur Floriculture.—Window gardening; the growing of flowers upon the home grounds; containers; potting soils; fertilizers; preparation and planting of flower beds; propagation and culture of plants suitable for window and garden. (For students of household science.) I, II; (1).

  Mr. Dorner
- 20. Market Gardening.—Growing and handling vegetables for market. Laboratory. II; second half;  $(2\frac{1}{2})$ .

Associate Professor LLOYD, Mr. DURST

Prerequisite: Horticulture 3.

21. Special Vegetable Crops.—An exhaustive study of some vegetable or group of vegetables; individual work. Reference readings and field experiments. II; second half and summer vacation; (2½-5). (Open only to students who can remain during the summer vacation).

vacation.) Associate Professor Lloyd, Mr. Durst

Prerequisite: Horticulture 3.

22. Special Investigation and Thesis Work.—I, II; (5-10).

23. LANDSCAPE DESIGN.—The composition of public and private grounds; plans and reference readings. (Non-professional students

Mr. BRANDT

electing this course may take only I; second half; II; first half.) I, II; (2).

Prerequisite: Architecture 18.

24. ORNAMENTAL TREES AND SHRUBS .- Characters; culture; suitability for landscape work; problems in arrangement; planting plans. I, II; (3).

Prerequisites: Botany 11 or its equivalent; Horticulture 10b.

25. ADVANCED LANDSCAPE DESIGN .- Landscape and garden composition; plans and problems. I; second half; II; first half; (3; Mr. BRANDT more by special arrangement.)

Prerequisite: Horticulture 23.

26. LANDSCAPE PLANTING PLANS .- Planting design; plans for landscape and garden planting; arrangement of plants in detail. I; second half; II; first half; (3; more by special arrangement.)

Prerequisite: Horticulture 10b, 24 (first half semester).

- 27. LANDSCAPE PRACTICE.—Grading plans; working drawings; Mr. BRANDT specifications; contracts. I, II; (1). Prerequisite: Civil Engineering 22; Horticulture 23.
- 28. Exotics.—Tender decorative plants used in landscape gardening. I: first half; II; second half; (1). Mr. BRANDT
- 29. HERBACEOUS PERENNIALS AND ANNUALS.—Characters; values; climatology; suitability for landscape work and ornamental arrangement; planting plans. I, II; (3). Mr. Brandt Prerequisite: Horticulture 10b.
- 30. DECORATIVE AND BEDDING PLANTS .- Tropical and sub-tropical plants used in decorative work in the conservatory; tender plants used in out-door bedding. Lectures: practical greenhouse work. II; (5). Mr. DORNER

Prerequisite: Horticulture 15a.

31. GARDEN FLOWERS .- The propagation and growing of annuals, herbaceous perennials, bulbs, and shrubs for cut flowers and ornamental plantings. I; (5). Mr. DORNER

Prerequisite: Horticulture 4 and 5; Botany 2.

32. FLORAL DECORATION .- Cut flowers and plants in decorative work; arrangement of flowers in baskets; designs and bouquets; table decoration; house decoration. II; first half; (21/2). Mr. DORNER

#### COURSES FOR GRADUATES

102. Pomology.—Special problems in adaptation, propagation, cultivation, or pruning of small fruits. Associate Professor Crandall

103. OLERICULTURE.—Special problems in structure, cultural requirements, and improvement of vegetables.

Associate Professor LLOYD

108. Pomology.—Special problems in relationship, adaptation, improvement, propagation, cultivation, pruning, protection, preservation, or marketing of orchard fruits.

Professor Blair, Associate Professor Crandall

109. FORESTRY.—Problems in general forestry and investigation of forest growths.

Professor Burrill

115. FLORICULTURE.—The horticultural status of some flowering plants; or special problems in the culture of greenhouse plants.

Mr. DORNER

# HOUSEHOLD SCIENCE

The department of household science is housed in the north wing of the Woman's Building.

Two kitchens, a laboratory, pantry, and dining room give opportunity for practice in various kinds of work with food. Two rooms are devoted to the study of clothing on its artistic and economic side. These are supplied with charts showing the history of costume and with illustrative material in the form of textile fabrics. The lecture and recitation rooms are provided with various household appliances, house plans, and materials for house furnishings.

The object of the courses in household science is to furnish training for teachers, dictitians, and institutional managers, and to provide an artistic and literary training for home life. The courses give (1) a liberal education upon the basis of pure and applied science, and (2) an opportunity for scientific study of the problems of the home.

1. Principles of the Selection and Preparation of Food—Nature and uses of food; chemical composition; changes effected by heat, cold, or fermentation; the principles of selection illustrated by marketing expeditions; the manufacture of food; the combinations of different kinds. II; (3).

Assistant Professor Van Meter, Miss Crigler, Miss Rinaker Prerequisite: Entrance credit in Physics; Chemistry 1.

2. Home Architecture and Sanitation.—Situation, surroundings, and construction of the house; hygiene of the home; heating,

lighting, ventilation, water supply, and drainage; house planning; practice in making skeleton plans; sanitary plumbing; fixtures; internal drainage. Lectures. *I*; (2).

Professor Bevier, Professor White, Miss Gibbs, Miss Pincomb, Mr. Clark, Mr. Weaver.

3. ELEMENTARY HOME DECORATION.—Evolution of the house; homes of primitive peoples; theory of color and its application in home decoration; evolution of the home; furnishings from a sanitary and artistic standpoint. (Continuation of course 2.) II; (2).

Professor Bevier, Professor Ricker

Prerequisite: Art and Design 1; Architecture 41; Household Science 2.

4. FOOD AND NUTRITION.—Application of the principles of pure science to the physiological, chemical, and bacteriological problems of food and nutrition. Individual investigation.  $I_{ij}$  (5).

Assistant Professor Usher, Dr. Goldthwaite

Prerequisite: Botany 5; Chemistry 1, 2, 3, 13a, 9, 9c; five hours in botany or zoology; Household Science 1, 6, 5.

5. DIETETICS.—Principles of diet; relation of food to health; influence of age, sex, and occupation on diet; construction of dietaries; dietetic treatment of certain diseases. Laboratory. II; (3).

Assistant Professor USHER

Prerequisite: Household Science 1, 6; Physiology 4.

- 6. ECONOMIC USES OF FOOD.—The economic side of the food question; uses and application of preservatives. (Continuation of course 1.) I; (3). Assistant Professor VAN METER, Miss CRIGLER Prerequisite: Household Science 1.
- 7. Textiles.—Development of primitive industries; production of fibers used in textile manufacture; practice in judging cloth and in the application of the principles of selection of color and design in costumes. *I*; (2). Miss Gibbs

Prerequisite: Plain sewing.

12. Household Art.—Materials suitable for various uses in home and in clothing; texture, quality, and design in relation to form; color in relation to environment and personality; hygienic properties and cost. Lectures and laboratory. (Continuation of course 7; required of those registered in course 11.) II; (3). Miss Gibbs

Prerequisite: Household Science 7; Art and Design 1; Architecture 41.

- 9. SEMINAR.—(Open to seniors only.) II; (3).
- 10. Household Management.—Organization of the household; expenditure of income; care of the family and house; principles of home nursing. (Open to juniors and seniors.) I; (2).

Assistant Professor VAN METER

Prerequisite: Household Science 1, 6, 5; Economics 1.

- 11. TEACHERS' COURSE.—The best method of presenting the work, and its correlation with other subjects; practice in planning courses; some opportunity for presenting them. (For the prospective supervisor of the subject, or the teacher in graded schools. Open to seniors.) II; (2). Professor Bevier, Miss Pincomb Prerequisite: Household Science 1, 2, 3, 5, 6, 7, 13; registration in course 12.
- 13. HISTORY OF HOME ECONOMICS.—Origin and development of home economics; the work in various types of institutions; courses for these types. (Open to juniors and seniors.) I; (1).

Professor Bevier

14. Special Problems in Connection with the Service of Food.—Marketing; domestic storage; management of menus; utilization of waste food materials as modified by special conditions. (Continuation of course 6.) II; (3).

Assistant Professor VAN METER

Prerequisite: Household Science 6.

15. Economics of the Family Group.—The history and various forms of the family; its economic organization for securing, distributing, and expending its income; its relations as an economic and social unit to other economic and social units in the community; the industrial organization of the family; money, and other income; the laws of consumption and the interplay of economic physiological and psychological motives in expenditure and consumption; the reaction of the changing forms of modern industry on family industry; the economic, social, and legal relations of the members of the family; the economic position of woman in modern society; the domestic service problem; retail and wholesale markets.  $H_i$  (3).

Assistant Professor VAN METER

Prerequisite: Household Science 3, 10, 12, 14; Sociology 1; Economics 1; Philosophy 7, 8.

16. PROBLEMS IN THE ECONOMICS OF THE FAMILY GROUP.—An intensive treatment of special problems. The work is individual and is done in the senior seminar in economics. *I, II;* (2-4).

Professor Kinley

Prerequisite: Household Science 15.

# COURSES FOR GRADUATES

101. HOME ECONOMICS.—The industrial, educational, and sociological aspects of the origin and development of home economics.

Professor Bevier

102. Special Investigation.—Problems in the application of the principles of bacteriology, chemistry, and physiology to the ordinary processes used in the preparation of food.

Professor Bevier

# ITALIAN

(See ROMANCE LANGUAGES AND LITERATURE.)

## JOURNALISM

(See Rhetoric 12, 15, under The English Language and Literature.)

# LANDSCAPE GARDENING

(See HORTICULTURE.)

# LATIN

(See THE CLASSICS.)

# LAW

- 1. Contracts.—Huffcut & Woodruff's Cases; Anson on Contracts; selected Illinois cases. (First year. Open to students in Literature and Arts, with credit.) II; (6).

  Mr. Decker
- 2. Torts.—Ames & Smith's Cases. (First year. Open to students in Literature and Arts, with credit.) II; (5). Mr. HALE
- 3. REAL PROPERTY.—Gray's Cases, Vols. I and II. (First year. Open to students in Literature and Arts, with credit.) II; (3).

Professor THURSTON

4. COMMON LAW PLEADING.—(First year.) II; (3).

Professor HARKER

4a. Illinois Procedure.—(Third year.) I; (3).

Professor HARKER

- 5. CRIMINAL LAW AND CRIMINAL PROCEDURE.—Mikell's Cases. (First year.) I; (4). Professor Green
- 6. Personal Property.—Gray's Cases, Vol. I. (First year. Open to students in Literature and Arts, with credit.) I; (3).

Professor Thurston

- 7. Domestic Relations.—Smith's Cases on the Law of Persons. (First year.) II; (2). Assistant Professor Pomeroy
  - 8. EVIDFNCE.—Thayer's Cases. (Second year.) I; (5).

Mr. HALE

- SALES.—Williston's Cases. (Elective, second or third year.)
   II; (3).
- 10. REAL PROPERTY.—Gray's Cases, Vols. II and III. (Second year.) II; (4).
  - 11. Agency.—Wambaugh's Cases. (Second year.) I; (3).

    Professor Thurston
  - 12. EQUITY.—Scott's Cases. (Second year.) I; (5).

    Assistant Professor Pomeror
- 13. Damages.—Beale's Cases, 2nd Ed. (Elective, second or third year.) I; (2). Mr. Decker
- CARRIERS.—Green's Cases. (Elective, second or third year.)
   II; (3). Professor Green
  - 15. BILLS AND NOTES.—Huffcut's Cases. (Third year.) I; (3).
    Mr. HALE
  - 16. TRUSTS.—Ames' Cases. (Elective, third year.) I; (3).

    Professor Thurston
- 17. Private Corporations.—Smith's Cases. (Third year.) II; (4).
  - WILLS.—Gray's Cases, Vol. IV. (Second year.) II; (3).
     Assistant Professor Pomeroy
  - 19. Partnership.—Ames' Cases. (Third year.) II; (2). Professor Green
- 20. Equity Pleading.—Shipman on Equity Pleading. (Second year.) II; (2). Professor Harker
  - 21. Suretyship.—Ames' Cases. (Third year.) II; (3).
    Mr. Decker

- 22. CONSTITUTIONAL LAW.—McClain's Cases, 2nd Ed. (Third year.) I; (4). Professor Green
- 23. Mortgages.—Kirchway's Cases. (Elective, third year.)
  II; (2). Assistant Professor Pomerox
- 24. Municipal Corporations.—Smith's Cases on Municipal Corporations. (Elective, third year.) I; (2).

Assistant Professor Pomeroy

- 25. BANKRUPTCY.—Williston's Cases. (Elective, third year.)
  II; (2). Mr. DECKER
  - 26. Moot Court.—(Second year.) I, II; (2). Professor HARKER
- 27. FUTURE INTERESTS IN PROPERTY.—Gray's Cases, Vol. V. (Elective, second or third year. Given in 1910-1911 and in alternate years.) II; (3).
- 28. INSURANCE.—Wambaugh's Cases. (Elective, second or third year. Not given in 1910-1911, but in 1911-1912 and in alternate years.) II; (2). Professor GREEN
- 29. CONVEYANCING.—Lectures. (Elective, second or third year. Not given in 1910-1911, but in 1911-1912 and in alternate years.) II; (1).
- 30. Public International Law.—Lawrence's Principles and Scott's Cases. (Elective, second or third year.) I; (3).

Professor GARNER

- 31. CONFLICT OF LAWS.—Beale's Shorter Selection of Cases on Conflict of Laws. (Elective, third year.) II; (2). Mr. DECKER
- 32. QUASI-CONTRACTS.—Woodruff's Cases. (Elective, second or third year. Given in 1910-1911 and in alternate years.) II; (2).

  Professor Thurston

# LIBRARY SCIENCE

- 2. REFERENCE WORK.—Methods of research; the use of reference books; practical work in the reference department of the University library. I, II; (3).

  Assistant Professor SIMPSON
- 3. Selection of Books.—Selection of books for libraries of different types; practice in writing book annotations for library catalogs and bulletins. *I, II;* (2). Assistant Professor PRICE
- 4. PRACTICE WORK.—Four hours a week of practical work in the various departments of the University library. To be taken with Library 2, 16, 17, 18, 19, 20, and 21. I, II; (2). Miss Curtis

- 6. Subject Bibliography.—Selection of books in special subjects; treatment of the literature and bibliography of each. Lectures given by professors in the respective departments of the University. I, II; (2).
- 7. HISTORY OF LIBRARIES.—The foundation, development, and resources of the leading libraries of Europe and the United States. II; (2).

  Assistant Professor SIMPSON
- 8. ADVANCED REFERENCE.—Transactions of learned societies; special periodicals and government publications; indexes and other works of value to a large reference department. I; (2).

Assistant Professor SIMPSON

Prerequisite: Library 2.

- 9. BOOKMAKING.—History of the early forms of books; the invention and spread of printing; book illustration; book-binding. II; (2).

  Professor Windson
- 10. Practice Work.—Eight hours a week; a continuation of Library 4, supplemented by one month of work as a member of the staff of an assigned public library. *I, II;* (4). Miss Curtis
- 12. GENERAL REFERENCE.—Classification and arrangement of books in the University library; the card catalogs; the more generally used reference books. (Intended for freshmen and sophomores in the University, rather than for students registered in Library School.) Repeated each semester. I or II; (2).

Assistant Professor Simpson, Miss Hutchins, Miss Johnson

- 13. Public Documents.—13a.—Production and acquisition of Federal documents; their treatment and use as reference books. 13b.—American state and municipal documents; publications of foreign governments. (Second semester elective to students who have completed 13a.) I, II; (2). Assistant Professor Wilson
- 15. SEMINAR IN LIBRARY ECONOMY.—Special problems; library economy publications; independent work. I, II; (2).

Assistant Professor Wilson and others

- 16. Order, Accession, and Shelf Work.—Order department records and routine; book-buying; publishers and discounts; copyright; serials and continuations; gifts; exchanges; duplicates; the accession book and its substitutes; the shelf list and its uses; the care of pamphlets, elippings, and maps. 1; (2). Miss Curtis
- 17. CLASSIFICATION.—Principles of book classification; the Dewey Decimal Classification; the Cutter Expansion Classification; book numbers. I; (2).

  Assistant Professor PRICE

- 18. CATALOGING.—Dictionary cataloging; assignment of subject headings; classed cataloging; sixty hours of cataloging for the University library. *I*; (4). Assistant Professor PRICE
- 19. TRADE BIBLIOGRAPHY.—Books and periodicals used as tools of the book trade of America, England, Germany, France, Italy, Spain, Holland, and the Scandinavian countries. II; (1).

Assistant Professor PRICE

- 20. LOAN DEPARTMENT.—Records connected with the loan of books; representative loan systems; rules, regulations, and practices. II; (1).

  Assistant Professor Wilson
- 21. Printing, Binding, and Indexing.—Printing: Printing for libraries; practice in preparing copy and in reading proof; visits to print shops. Binding: Materials and methods of book-binding; bindings suitable for library use; visits to binderies; practice in preparing books for the bindery and in making necessary records; practice in the repair of books. Indexing: Indexes; the form of citation; the choice and arrangements of headings; kinks of type; practice in the indexing of books and magazines. II; (2).

Professor Windsor, Miss Curtis

22. LIBRARY EXTENSION.—Methods; library associations; library schools; library commissions; township and county library systems; traveling libraries; home libraries; other agencies. II; (3).

Assistant Professor Wilson

- 23. LIBRARY ADMINISTRATION AND CURRENT LIBRARY LITERATURE.

  —Current library periodicals, bulletins, reports, catalogs, and reading lists; the organization, reorganization, and administration of small libraries; the planning and equipment of reading rooms and small library buildings; library accounts and business forms. I, II; (1).

  Miss Curris
- 24. Selection of Books.—English translations of representative works of French, German, Spanish, and Italian novelists of the 19th century; examination of about forty newly published books sent each month to the School for inspection. *I*, *II*; (2).

Assistant Professor PRICE

25. Advanced Classification and Cataloging.—The principal systems of book classification; rules for cataloging books. II; (1).

Assistant Professor PRICE

Prerequisites: Library 17 and 18.

26. LIBRARY ADMINISTRATION.—Advanced other work; library organization; library architecture; library work with children; lectures

on special topics by visiting librarians, members of the faculty, and the library staff.  $I,\ II;\ (3).$ 

Assistant Professors Wilson, Price, and Drury, Miss Lyman, and others.

- 27. Bibliographical Institutions.—Organization and work of societies and institutions of America and Europe interested in the production of bibliographical material; ecoperative undertakings; international bibliography. *I*; (1). Assistant Professor Wilson
- 28. Practice Work.—(Students may elect special practice work in certain departments of the University library.) II; (1 to 4).

Professor Windsor

## MATHEMATICS

The courses offered by the department are arranged to meet the needs of three classes of students: (1) those who wish to elect the subject as an element in a general education; (2) those who will have occasion to make use of mathematics in cognate subjects, and (3) those who wish to specialize in mathematics. Those who select mathematics as a major subject should take mathematics 2, 4, and 6 in the freshman year; mathematics 7, 9, and 18a in the sophomore year, and mathematics 10, 16, 17a, and 19a in the junior year. In the senior year the selection may be made from the courses open to graduates and undergraduates as seems desirable. Students specializing in mathematics are advised to take work also in some line of applied mathematics.

The mathematical library, consisting of about 1,900 volumes, is adequate for advanced work and research. The leading mathematical journals are received currently. The department also has in its possession a collection of models and computing machines, which are valuable in instruction and research.

# INTRODUCTORY COURSES FOR UNDERGRADUATES

2. College Algebra.—I; (3). (Three sections repeat the work in the second semester.)

Professor Miller, Assistant Professor Rietz, Assistant Professor Sisam, Assistant Professor Shaw, Dr. Crathorne, Dr. Börger, Dr. Neikirk, Dr. Reed, Dr. Lytle, Dr. Wahlin, Dr. Buck, Mr. Denton, Mr. Forsythe, Mr. Carscallen, Mr. Barnhart, Mr. Minnick, Mr. Fischer, Mr. Taylor

Prerequisite: Algebra through quadratics.

3a. Spherical Trigonometry.—II; (2). Dr. Reed

Prerequisite: Solid and Spherical Geometry.

4. Plane Trigonometry.—I; (2). (Three sections repeat the work in the second semester.)

Professor Miller, Assistant Professor Rietz, Assistant Professor Sisam, Assistant Professor Shaw, Dr. Crahhonne, Dr. Börger, Dr. Lytle, Dr. Neikirk, Dr. Reed, Dr. Wahlin, Dr. Buck, Mr. Denton, Mr. Forsythe, Mr. Carscallen, Mr. Barnhart, Mr. Minnick, Mr. Fischer, Mr. Taylor

- 5. Teachers' Course.—Methods of teaching algebra and geometry; the position of mathematics in the secondary school course; the correlation of mathematics with allied subjects; leading textbooks; history of elementary mathematics. II; (2). Dr. LYTLE
- 6. ANALYTIC GEOMETRY.—Plane and solid analytic geometry. II; (5).

Professor Miller, Assistant Professor Rietz, Assistant Professor Sisam, Assistant Professor Shaw, Assistant Professor Emch, Dr. Crathorne, Dr. Börger, Dr. Lytle, Dr. Neikirk, Dr. Reed, Dr. Wahlin, Dr. Buck, Mr. Denton, Mr. Forsythe, Mr. Carscallen, Mr. Barnhart, Mr. Minnick, Mr. Fischer, Mr. Taylor.

Prerequisite: Mathematics 2 and 4.

7, 9. DIFFERENTIAL AND INTEGRAL CALCULUS.—The principles of the differential and integral calculus developed and applied to functions of one and of several variables. (Section A is an honor section and may be selected by those specializing in mathematics or having an average grade of 90 in freshman mathematics.)  $I_j$  (5);  $II_j$  (3).

Assistant Professor Rietz, Assistant Professor Sisam, Assistant Professor Shaw, Assistant Professor Emch, Dr. Crathorne, Dr. Börger, Dr. Neikirk, Dr. Lytle, Dr. Wahlin, Dr. Buck, Mr. Denton, Mr. Forsythe, Mr. Minnick

Prerequisite: Mathematics 6.

9a. DIFFERENTIAL AND INTEGRAL CALCULUS.—(Second Course.) The definite (single and multiple) integral with exercises in the formulation of problems arising in applied mathematics; line, surface, and volume integrals; the theorems of Stokes and Green; partial differentiation; exact differentials with applications of the conditions for exactness; elements of differential questions; approximate quadrature and integration of differential equations. I or II; (2).

Assistant Professor RIETZ, Dr. CRATHORNE, Dr. LYTLE Prerequisite: Mathematics 7, 9.

8a. DIFFERENTIAL AND INTEGRAL CALCULUS.—(For students in chemistry and chemical engineering.) I; (5).

Professor MILLER, Dr. WAHLIN

Prerequisite: Mathematics 6.

18a. Constructive Geometry.—Development and training of space perception; properties of lines, planes, and the simpler surfaces of the second order studied by various methods of parallel and central projection; graphical interpretation of the processes of analytic geometry; analytic discussion of the methods of descriptive geometry. II; (3).

Assistant Professor SISAM

Prerequisite: Mathematics 6.

COURSES FOR GRADUATES AND ADVANCED UNDERGRADUATES

 Introduction to Higher Algebra.—Linear dependence; theory of matrices; complex numbers; the fundamental theorems of algebra; fundamental properties of polynomials and determinants. I; (3).

Prerequisite: Mathematics 7, 9 (or 8a).

11. SYNOPTIC COURSE IN MATHEMATICS.—The importance of mathematics in the intellectual history of the race; the principles which underlie the most important divisions of mathematical science, pure and applied. I, II; (2).

Prerequisite: Mathematics 2, 4, and 6.

[Not given in 1910-1911.]

16. Differential Equations.—General linear equations with constant coefficients; special forms of differential equations of higher order; integration in series.  $I_{\it f}$  (3). Professor Shattuck

Prerequisite: Mathematics 8a or 9.

17a. Advanced Calculus.—Fundamental notions and theorems of the calculus from a more advanced and critical point of view; elliptic integrals; functions defined by definite integrals. II; (3).

Dr. CRATHORNE

Prerequisite: Mathematics 7, 9.

19a. SOLID ANALYTIC GEOMETRY.—Equations of the plane and the right line in space; the more general properties of surfaces of the second degree; the classification and special properties of quadrics; a brief introduction to the theory of surfaces in general. II; (3).

Dr. Buck

Prerequisite: Mathematics 8a (or 7), 10.

20. CALCULUS OF VARIATIONS.—Those elements of the science that are most needed in the study of the higher subjects of mathematical astronomy and physics. II; (3). Professor SHATTUCK

Prerequisite: Mathematics 16.

21a. METHOD OF LEAST SQUARES.—Law of probability and error; adjustment of observation; precision of observations; independent and conditional observations. I; (2). Assistant Professor Stebbins Prerequisite: Mathematics 8a or 7.

22a. Partial Differential Equations.—Integration and determination of the integration constants of such partial differential equations as arise in the study of such subjects as the flow of heat, the vibration of strings, plates, and electricity. II; (2).

Dr. WAHLIN

Prerequisite: Mathematics 16.

23a. Averages and the Mathematics of Investment.—Meaning, use, and abuse of different kinds of averages; relation of the theory of probability to averages; application of the elements of probability to annuities, insurance, and various branches of science; loans and investments; practical problems in the evaluation of investment securities. II; (3).

Assistant Professor RIETZ

Prerequisite: Mathematics 2; junior standing.

24a. FUNCTIONS OF A COMPLEX VARIABLE.-I, II; (3).

Professor Townsend

Prerequisite: Mathematics 7, 9, 16.

27. PROJECTIVE GEOMETRY AND LINEAR TRANSFORMATIONS.—Sets of postulates for general projective geometry and the introduction of analytic methods on the basis of these assumptions; projective transformations in the line, plane, and space; the algebra of matrices and the theory of invariants; sub-groups of the general projective group; euclidean, non-euclidean, and affine goemetries; theory of conics and quadric surfaces; real and complex geometries; geometric and algebraic interrelations. I, II; (3).

Dr. BÖRGER

Prerequisite: Senior standing in Mathematics.

30. SEMINAR AND THESIS .-- I, II; (3).

Professor TOWNSEND, Professor MILLER, Assistant Professor RIETZ, Assistant Professor SISAM, Assistant Professor SHAW, Assistant Professor EMCH

31. ACTUARIAL THEORY.—Application of probability to life contingencies; mortality tables; fire insurance; premiums for various types of insurance.  $I_f$  (3). Assistant Professor Rietz

Prerequisite: Mathematics 8a, 23a.

#### COURSES FOR GRADUATES

101. Functions of Real Variables.—The theory of functions of real variables; the theory of assemblages. I, II; (3).

Professor TOWNSEND

Prerequisite: Mathematics 16.

[Not given in 1910-1911; given in 1911-1912.]

102. FOURIER'S SERIES.—Fourier's and allied series; physical applications; classical and recent researches concerning the properties of Fourier's series and operations upon them. (For students of pure mathematics and the physical sciences.) I, II; (3).

Dr. CRATHORNE

Prerequisite: Mathematics 16.

[Not given in 1910-1911; given in 1911-1912.]

103. Theory of Potential.—Logarithmic and Newtonian potential functions; Green's theorems and functions; boundary value problems; physical problems. *I*; (3).

Dr. Crathorne

 $\label{eq:prerequisite:Mathematics 16.} Prerequisite: \ \ \text{Mathematics 16.}$ 

[Not given in 1910-1911.]

104. Expansions in Terms of Oscillatory Functions.—I; (3).

Prerequisite: Mathematics 16.

110. ELLIPTIC FUNCTIONS.—Elliptic functions applied to geometry and mechanics; the elliptic modular functions. *I, II;* (3).

Assistant Professor EMCH

Prerequisite: Mathematics 24a.

111. Automorphic Functions.—First semester: The group-theoretic side of the theory; second semester; Function-theoretic developments and applications. *I*, *II*; (3).

Prerequisite: Mathematics 24a and preferably 27 and 110.

[Not given in 1910-1911; given in 1912-1913.]

112. ABELIAN FUNCTIONS.—Algebraic functions of a complex variable and their integrals; Rieman's surfaces; birational transformations; Abel's theorem with geometrical applications; the inversion problem and the theta functions. I, II; (3).

Prerequisite: Mathematics 24a, 110.

[Not given in 1910-1911; given in 1911-1912.]

113. THEORY OF LINEAR DIFFERENTIAL EQUATIONS.—I, II; (3).
Dt. Crathorne

Prerequisite: Mathematics 24a.

120. ELEMENTARY THEORY OF GROUPS.—Groups in arithmetic, geometry, and trigonometry; those which can be represented with a small number of letters; the abstract group theory; the Galois theory of equations. *I*, *II*; (3).

121. THEORY OF GROUPS.—Second course. Special topics; recent advances and methods; research. I, II; (3). Professor MILLER

Prerequisite: Mathematics 120.

[Not given in 1910-1911; given in 1912-1913.]

124. THEORY OF NUMBERS.—Congruences; Kronecker's modular systems; quadratic residues; quadratic forms; algebraic numbers. I, II; (3).

Professor Miller

[Not given in 1910-1911; given in 1911-1912.]

129. Theory of Statistics.—General methods of statistical investigation; application of the theory of probability to statistical data; fitting curves to observation; interpolation; theory of errors; mathematical theory of variability and correlation; application of principles developed to problems in economics, sociology, and biology. I, II; (3).

Assistant Professor Rietz

Prerequisite: Mathematics 8a.

[Not given in 1910-1911; given in 1911-1912.]

130. Invariants and Higher Plane Curves.—General theory of algebraic curves; application of the theory of invariants to higher plane curves; curves of the third and fourth order. *I; II;* (3).

Assistant Professor SISAM

Prerequisite: Mathematics 16 and 27.

[Not given in 1910-1911; given in 1911-1912.]

131. Algebraic Surfaces.—Application of homogeneous coordinates and the theory of invariants to geometry of three dimensions; general theory of surfaces; special properties of surfaces of the third and fourth order. *I*, *II*; (3).

Assistant Professor SISAM

Prerequisite: Mathematics 19a and 130.

135. METRIC DIFFERENTIAL GEOMETRY.—Applications of the calculus to the general theory of curves and surfaces based primarily on the use of Cartesian co-ordinates; relation of the theory of surfaces to the theory of invariants of a pair of quadratic differential forms. I, II; (3).

Prerequisite: Mathematics 16.

136. PROJECTIVE DIFFERENTIAL GEOMETRY.—Lie's theory with applications to the theory of invariants of systems of linear differ-

ential equations; differential properties of plane and space curves, and of surfaces considered from a projective point of view. *I*, *II*; (3).

Prerequisite: Mathematics 16, 27.

[Not given in 1910-1911; given in 1912-1913.]

140. THE FUNDAMENTAL CONCEPTS OF MATHEMATICS.—The general concepts of higher mathematics in their bearing on elementary mathematics. *I*; (3).

Prerequisite: Senior standing in Mathematics.

[Not given in 1910-1911; given in 1911-1912.]

141. VECTOR ANALYSIS.—The notations of Gibbs; systems which have been proposed. I, II; (3). Assistant Professor Shaw Prerequisite: Mathematics 8b.

### MECHANICAL ENGINEERING

3. Power Measurement.—The apparatus used in engine and boiler tests—scales, thermometers, indicators, brakes and dynamometers, gauges, calorimeters; methods of calibrating and using such apparatus; tests for horse-power of steam engines, pumps, and gas engines. Reports. I; (2).

Assistant Professor Snodgrass, Mr. Godeke, Mr. Kratz, Mr.

VEDDER, Mr. DIRKS

Prerequisite: Mechanical Engineering 16, 41, 42; Mathematics 9.

4. Elements of Machine Design.—Design of machine elements: Bolts, keys, journals, bearings, couplings; forms of gear teeth; spur and bevel gears. I; (2). Mr. Schaller, Mr. Kratz

Prerequisite: General Engineering Drawing 1.

5: MECHANISM (Kinematics of Machinery).—Typical mechanisms and mechanical movements; kinematic principles involved in laying out such mechanisms; the methods of Reuleaux; parallel motions; quick return motions; valve gears; epicylic trains. I; (3).

Mr. DURKIN, MR. DURK

Prerequisite: Physics 1, 3; Theoretical and Applied Mechanics 7.

6. HEAT ENGINES.—The steam engine; steam turbine; gas engine; air compressor; refrigerating machine. Mixtures of gases; combustion of gaseous fuels. (A continuation of course 7.) I; (2).

Associate Professor Goodenough

Prerequisite: Mechanical Engineering 7.

THERMODYNAMICS.—The transformation of heat into work;
 the second law and its connection with irreversible processes; the

properties of heat media, the perfect gases, saturated and superheated vapors; the flow of fluids. II; (3).

Associate Professor Goodenough
Prerequisite: Mathematics 9a; Theoretical and Applied Mechanics 8.

8. MECHANICS OF MACHINERY.—Friction in machine parts; useful application of friction as in friction clutches and brakes; transmission of power by ropes and belting; brakes, clutches, and dynamometers; hoisting machinery; hoisting in mines; elevators and cranes; hydraulic machinery: accumulators, and centrifugal pumps; fans, blowers, air compressors, air motors and transmission of power by means of air.

I; (3). Assistant Professor Leurwiler

Prerequisite: Theoretical and Applied Mechanics 9, 11; Mechanical Engineering 5, 7.

- 9. MACHINE DESIGN.—(a) Inventive Problems.—Designs of parts of machines or of mechanisms to accomplish a definite purpose or to effect a certain predetermined motion. The design of a number of jigs and fixtures applicable to drilling, milling, boring, and turning operations.
- (b) Advanced Design.—Theory of machine design, with applications; investigation of actual machine similar to the one to be designed; design of machinery subjected to heavy and variable stresses: Punches, shears, presses, riveters, and cranes. I, II; (3).

  Assistant Profesor Leutwiler. Mr. Dunkin

Prerequisite: Theoretical and Applied Mechanics 8, 9; Mechanical Engineering 4, 5.

11. Steam Engines and Boilers.—The construction, operation, and care of boilers and engines; elementary thermodynamics; the indicator and indicator diagrams; steam engine performance. (For students in civil, architectural, and municipal engineering.) II; (3).

Mr. DUNKIN, Mr. SCHALLER, Mr. GODEKE

Prerequisite: Physics 1.

12. MECHANICAL ENGINEERING LABORATORY.—Experiments on engines, turbines, gas engines, pumps, boilers, injectors, air compressors, hoisting appliances, heating apparatus, and the refrigerating machines. Tests of power plants in the vicinity. *I*; (3).

Assistant Professor Snodgrass, Mr. Godeke, Mr. Kratz, Mr.

VEDDER

Prerequisite: Mechanical Engineering 3, 7.

13. MECHANICAL ENGINEERING LABORATORY.—The testing and calibration of instruments and apparatus; use of the indicator; calcu-

lation of horse-power and steam consumption; reading of indicator diagrams; valve setting. (For students in electrical engineering.) II; (3).

Mr. Godeke, Mr. Kratz, Mr. Vedder, Mr. Dirks, Mr. Schaller

14. Design of Power Plants.—Design, with estimates and specifications, of some form of power plant. II; (3).

Assistant Professor Leutwiler, Mr. Dirks Prerequisite: Mechanical Engineering 12.

15. THERMODYNAMICS AND HEAT ENGINES.—A synopsis of courses 6 and 7, for students in electrical engineering. I, II; (3).

Associate Professor Goodenough, Mr. Dirks, Mr. Schaller Prerequisite: Mechanical Engineering 11 or 16 or 23.

- 16. Steam Engineering.—Engines, boilers, pumps, condensers, and other steam machinery. II; (3). Mr. Kratz, Mr. Schaller
- 19. Seminar.—Papers on subjects relating to current engineering practice; the indexing of current engineering literature. Each student subscribes for a technical journal. Open to seniors only. I, II; (1).

  Assistant Professor Snodgrass
- 23. Steam Engineering.—A synopsis of courses 11 and 16, for students in electrical engineering.  $I_i$  (2). Mr. Dirks, Mr. Schaller
- 24. MACHINE DESIGN AND MECHANISM.—The design of simple machine elements: keys, couplings, gears; the principles of mechanism, (For students in electrical engineering.) I; (3).

Mr. DUNKIN, Mr. SCHALLER

Prerequisite: General Engineering Drawing 1.

27. ADVANCED LABORATORY PRACTICE.—Special research work in the mechanical engineering laboratory. Open to seniors only. *Time and credits will be arranged by consultation*.

Assistant Professor Snodgrass

Prerequisite: Mechanical Engineering 12.

29. Seminar for Juniors.—Technical publications; the presentation of abstracts of important articles on engineering topics. Methods of classification; filing systems for clippings, catalogs, and drawings. II; (1). Assistant Professor Snodgrass

Prerequisite: Rhetoric 1.

30. Machinery and Manufacturing.—Construction, operation and erection of "form changing machines." Machinery that transforms raw material into a finished product. Manufacturers vs. build-

ing; hand labor vs. automatic machinery; the American system of interchangeable machine parts. II; (2).

- 31. GENERATION AND TRANSMISSION OF POWER.—Elementary principles of generation and transmission of power. Applications of power for purposes of agriculture, manufacturing, mining, and transportation on land and water. II; (2). Assistant Professor SNODGRASS
- 32. MECHANICAL ENGINEERING LABORATORY.—Heating and ventilation. Calibration of instruments, tests of various heating systems, experiments on fans and blowers. *I*; (1).

Assistant Professor Snodgrass

33. Thesis.—Investigation of special subject and preparation of thesis embodying a review of the literature of the subject, the results of investigation, and a discussion of those results. Weekly reports during the second semester. (Required of seniors.) II; (3).

Associate Professor Goodenough. Assistant Professors Leurwiler.

and Snodgrass. Mr. Freeman

- 35. Mine Machinery.—Air compressors, pumps, gas engines, and other machinery used in mining. (For students in mining engineering.) I; (2). Mr. DIRKS
  - 41. SHOP PRACTICE .-

Pattern Work (18 weeks).—Exercises in elementary wood work; wood turning; pattern making. Blue prints and practice in reading drawings.

Forge Work (9 weeks).—Methods of handling iron and steel in the forge fire; forging, welding, and the working of iron and steel under the power hammer; heat treatment of steel, including the handling of the modern high speed steels.

Foundry Work (9 weeks).—Molding and core work; melting and casting iron and brass; molding machines and other labor-saving devices; the mixing of iron; the operation of the cupola; the mixing and melting of brass and other soft metals. I, II; (3).

- Mr. Freeman, Mr. Ellis, Mr. Lanham, Mr. Gawne, Mr. Kennedy, Mr. Duncan, Mr. Rebman
- 42. Machine Shop Practice.—Elementary exercises in chipping, filing; practice on the drill, lathe, planer, and other standard machine tools; methods of manufacture; cost-keeping systems; visits of inspection. I; (3), II; (2).

Mr. Freeman, Mr. Scroggin, Mr. Goben, Mr. Bradford

46. Advanced Shop Practice.—The construction of commercial machinery, of apparatus or machines originally designed by the student, or a study of modern shop processes, especially those relating to the production of interchangeable parts by means of jigs and templates. Elective for juniors or seniors. I or II. Time and credits will be arranged.

Mr. Freeman, Mr. Scroggin

Prerequisite: Mechanical Engineering 41, 42.

- 47. SHOP PRACTICE FOR SPECIAL STUDENTS.—Open only to special students, No credit, Mr. Scroggin
- 48. Forge Shop Practice.—Forging for the practical farmer. For students in agriculture. Six hours a week, either half of I or II; (2).

  Mr. Lanham, Mr. Cook
- 49. Wood Shop Practice.—For students in agriculture. Nine hours a week, to be arranged. I or II; (3). Mr. Ellis

### COURSES FOR GRADUATES

106. Heat Motors.—The advanced theory of the internal combustion motor, and of the steam turbine. The general principles and methods of refrigeration. Twice a week; II.

Associate Professor Goodenough

- 107. THERMODYNAMICS.—The general principles of thermodynamics and their application to the solution of physical and chemical problems. Three times a week; I. Associate Professor GOODENOUGH Prerequisite: Mechanical Engineering 7 or an equivalent.
- 109. Machine Design.—The general principles of rational design; the application of mechanics of materials. Individual problems.

  Twice a week; I or II.

  Assistant Professor Leutwiler
- 112. LABORATORY INVESTIGATIONS.—Special investigations of problems relating to combustion of fuel, boiler economy; steam engines and turbines; gas engines and producers; properties of explosive mixtures; mechanical refrigeration. Original work. Three times a week; I or II.

  Assistant Professor SNODGRASS
- 114. Engineering Design.—Design with estimates and specifications of a complete engineering project, such as a manufacturing plant, a power plant, or a pumping station. Twice a week; I or II

  Assistant Professor Leutwiler

# MECHANICS, THEORETICAL AND APPLIED

5. STRENGTH OF MATERIALS.—A simplification of Theoretical and Applied Mechanics 9. For students in architecture. Murdock's Notes on the Strength of Materials. I; Laboratory weekly; (4).

Mr. MURDOCK, Mr. NOERENBERG, Mr. GONNERMAN

Prerequisite: Mathematics 2 and 4; Theoretical and Applied

Mechanics 12.

6. Engineering Materials.—The properties and requirements for materials used in engineering construction, the effect of methods of manufacture upon the quality of the material, and the specifications and standard tests used to secure acceptable grades of material. Lectures and assigned reading.  $I_j$  (1).

Professor Talbot, Assistant Professor Moore

Prerequisite: Registration in Theoretical and Applied Mechanics
9.

- 7. 8. ANALYTICAL MECHANICS.—The mechanics of engineering rather than that of astronomy and physics. The fundamental concepts and the general principles of equilibrium and motion; the application of principles and methods to engineering problems. The statement of conditions and the use of data. (The work begins in the second semester; in the first semester of the following year it is given concurrently with Theoretical and Applied Mechanics 9.) Maurer's Technical Mechanics. II; (3); I; (2½).
  - Mr. Enger, Mr. Murdock, Mr. Fleming, Mr. Noerenberg, Mr. Boomsliter, Mr. Seely, Mr. Ensign, Mr. Farwell

Prerequisite: For 7, Mathematics 7, registration in Mathematics 9; for 8, Mathematics 9; Theoretical and Applied Mechanics 7.

- 9. RESISTANCE OF MATERIALS.—The principles of the mechanics of materials; experiments and investigations in the materials laboratory to verify the experimental laws; problems in ordinary engineering practice; the quality and requirements for structural materials. Merriman's Mechanics of Materials. Laboratory weekly. I; (31%).
  - Mr. Enger, Mr. Murdock, Mr. Fleming, Mr. Noerenberg, Mr. Boomsliter, Mr. Seely, Mr. Ensign, Mr. Gonnerman, Mr. Farwell

Prerequisite: Mathematics 9; Theoretical and Applied Mechanics 7; registration in Theoretical and Applied Mechanics 8.

10. HYDRAULICS.—The laws of the pressure and the flow of water and its utilization as motive power; experimental work in the obser-

vation and measurement of pressure, velocity, and flow; in power and efficiency; in the determination of experimental coefficients. Hoskins' Hydraulics. Laboratory weekly. II; (3).

Mr. Murdock, Mr. Fleming, Mr. Boomsliter, Mr. Ensign, Mr. Farwell, Mr. Gonnerman

Prerequisite: Mathematics 9; Theoretical and Applied Mechanics 8.

- 11. ANALYTICAL MECHANICS.—Advanced kinetics; problems and applications. An extension of Theoretical and Applied Mechanics 7 and 8 for mechanical engineers. II; (3). Mr. Enger, Mr. Seely Prerequisite: Mathematics 9; Theoretical and Applied Mechanics 8.
- 12. ELEMENTS OF MECHANICS.—A simplification of Theoretical and Applied Mechanics 7 and 8, for students in architecture. Morley's Mechanics for Engineers. II; (5).

Mr. Murdock, Mr. Noerenberg

Prerequisite: Mathematics 2 and 4.

### COURSES FOR GRADUATES

- 101. ANALYTICAL MECHANICS.—The foundations of mechanics and its various relations; methods of treatment and attack; the more complex problems and applications; a critical and comparative study of texts. I. Twice a week.

  Assistant Professor Moore
- 102. RESISTANCE OF MATERIALS.—The properties of materials used in engineering construction and the methods of determining these properties; analysis and investigation in mechanics of materials; the effect of form of member in a structure or machine; the method of application of forces; comparative study of texts. II. Twice a week.

  Assistant Professor Moore
- 103. Hydraulics and Hydraulic Engineering.—The laws of hydraulies and their application to engineering problems; hydraulic power and its development; design and investigation. II. Twice a week.

  Professor Talbot
- 104. Experimental Work in the Laboratory of Applied Mechanics.—Investigation in the materials testing laboratory on materials and on their action as used in machines and structures; experiments in the hydraulic laboratory with pumps, motors, and measuring devices, and the investigation of the laws of hydraulics, the development of power, and the study of various hydraulic problems. I, II. Professor Talbor and Assistant Professor Moore

105. EXPERIMENTAL AND ANALYTICAL WORK IN REINFORCED CONCRETE.—The interpretation of available experimental results and their application to the design of structures. The principles of construction and a study of typical reinforced concrete structures. I, II. Twice a week.

Professor Talbot

## METEOROLOGY

(See under Geology.)

### MILITARY SCIENCE

- \* 1. Theoretical Instruction.—Infantry Drill Regulations, For all male students, II. (1).
  - Mr. SWERN, Mr. STOUT, Mr. HELMLE, Mr. ALESHIRE
- \* 2. Practical Instruction.—Infantry.—School of the Soldier; company and battalion; regimental ceremonies. Artillery.—School of the cannoneer and battery dismounted. Freshman and sophomore years. I, II; (1).

  Professor Morse
- 3. Theoretical Instruction.—For sophomores: Drill Regulations and military administration. I, II; (1). For juniors: Field Service Regulations. I, II; (1). For seniors: Field Engineering. I, II; (1). This course is obligatory upon commissioned officers and sergeants, recommended to corporals, and open to others.

Professor Morse

AUTHORIZED TEXT-BOOKS.—United States Drill Regulations; United States Army Regulations; Beach's Manual of Field Engineering; Field Service Regulations, United States Army.

#### MINERALOGY

(See Geology 5, 5a, 6, 7, 7a.)

#### MINING ENGINEERING

- 1. Elementary Mining Principles.—The general processes of mining engineering. I, (1). Professor Stoek
- 2. EARTH AND ROCK EXCAVATION.—Explosives; blasting; drilling; tunneling; shaft sinking; coal cutting. II; (3).

Professor Stoek

<sup>\*</sup>Freshmen and sophomores are required to drill one and one-half hours each week until March 15; after that date, three hours each week. Freshmen attend recitations one hour a week in the second semester. Assignments to classes and companies are made by the Commandant of Cadets according to circumstances.

3. MINING METHODS.—Mining and timbering; coal and other bedded deposits. I; (2). Professor STOEK

Prerequisite: Mining Engineering 2.

4. MINE SURVEYING.—Instruments used in underground surveying and in plumbing shafts; general surveying processes in mining work; the theory and use of the stadia and other instruments used in making a topographic survey; instruments used in prospecting. II; (4). Mr. STEVENSON

Prerequisite: Civil Engineering 21.

5. MINE VENTILATION.—Mine gases; safety lamps; explosions in mines; rescue work; first aid; mine ventilation. II; (3).

Professor Stoek

Prerequisite: Chemistry 1a or 1b.

6. MECHANICAL ENGINEERING OF MINES.—Hoisting: ropes, cages, hoisting engines and other appliances. Haulage: the different systems used underground and on the surface; the methods of loading and unloading; mine stables; transportation of workmen; signaling. Drainage of mines: mine dams, mine pumps. Tipple arrangements; rock houses; ore bins. General surface plant. I; (3).

Mr. Stevenson

Prerequisite: Mechanical Engineering 16, or 11, or 23.

7. MINE ADMINISTRATION AND ORGANIZATION.—The general organization and administration of mining companies. Trade agreements—relations between employers and employees. II; (1).

Professor Stoek

Prerequisite: Mining 3.

8. MINING LAW.—The general mining laws of the several states, and a critical study of the mining laws of Illinois. II; (1).

Professor Stoek

9. PREPARATION OF COAL.—The handling and utilization of coal: crushing, screening, washing, coking, briqueting, sampling, weathering, transportation, and marketing of coal. *I*; (2).

Mr. Stevenson

10. Mining Laboratory.—Experiments with safety lamps, anemometers, water gages, mine fans, coal washing, and ore dressing machinery. II; (3). Professor Stoek, Mr. Stevenson

Prerequisite: Mining Engineering 5.

11. Thesis.—Individual investigation of a special mining subject; preparation of thesis giving review of the literature on the

subject, the results of experimental work, and a general discussion of the subject. II; (3). Professor Stoek, Mr. Stevenson

#### COURSES FOR GRADUATES

- 101. ECONOMICS OF COAL MINING.—The utilization, handling, marketing, storage, and transportation of coal.
- 102. THE COAL FIELDS OF THE UNITED STATES.—The different coal fields and the methods of working in each.
- 103. ACCIDENTS IN MINING.—The causes of accidents in mining in the United States and foreign countries.

### MODERN LANGUAGES

(See English Language and Literature, Germanic Languages and Literature, and Romance Languages and Literature.)

## MUNICIPAL AND SANITARY ENGINEERING

2. Water Supply Engineering.—The principal features of water supply engineering; source of supply; hydraulics of wells; stream flow; impounding and storage reservoirs; conduits and pipe lines; pumps and pumping machinery; stand-pipes and elevated tanks; the distribution system; tests and standards of purity of potable water. Designing weekly. Turneaure and Russell's Public Water Supplies. 1; (4).

Mr. Habermeyer, Mr. Enger, Mr. Fleming

Prerequisite: Theoretical and Applied Mechanics 9, 10; Chemistry 1; Mechanical Engineering 11.

3. Sewerage.—The design and methods of construction of sewerage systems: Sanitary necessity of sewerage; water carriage systems, both separate and combined; surveys and general plans; hydraulics of sewers; house sewage and its removal; relation of rainfall to storm water flow; determination of size and capacity of sewers; forms and strength of sewer appurtenances; modern methods of sewage disposal; estimates and specifications. Designing weekly. Folwell's Sewerage. II; (3).

Mr. Habermeyer, Mr. Enger, Mr. Fleming Prerequisite: Theoretical and Applied Mechanics 9, 10; Chemistry 1; Municipal and Sanitary Engineering 2.

5a. Bacteriology.—The identification and classification of bacteria, and of allied organisms; their relations to health and to disease; methods of separation and cultivation; methods of air and

water analysis. (For students in municipal and sanitary engineering.)

1; last 7 weeks; (2). Professor BURRILL, Mr. BRISCOE

Prerequisite: To follow Civil Engineering 4a.

6a, b. Water Purification, Sewage Disposal, and General Sanitation.—Impurities in water supplies and methods and processes of their removal; the modern methods of sewage disposal by filtration, chemical precipitation, irrigation; representative purification plants; garbage collection and disposal; sanitary restrictions and regulations and general sanitation. Lectures; seminar work; drafting. *I*; (3); *II*; (2). Professor Talbot, Mr. Habermeyer

Prerequisite: Municipal and Sanitary Engineering 2, 3, 5a;

Chemistry 1, 3b, 10b.

7. WATER SUPPLY ENGINEERING.—Similar to Municipal and Sanitary Engineering 2, for students in sanitary science. Designing weekly. Turneaure and Russell's *Public Water Supplies. 1*; (4).

Professor Talbot, Mr. Habermeyer

 $\label{eq:precequisite: Precequisite: Theoretical and Applied Mechanics, 5, 12, 10; \\ \text{Chemistry 3a.}$ 

- 8. Sewerage.—Similar to Municipal and Sanitary Engineering 3, for students in sanitary science. Designing weekly. Folwell's Sewerage. II; (3). Professor Talbot, Mr. Habermeyer
- 9. Hydraulic Design and Construction.—The design and methods of construction of reservoirs, dams, conduits, and waterways; hydraulic engineering problems. II; (2). Mr. Enger
- 30. Thesis.—Investigation or design of an engineering problem. Required of seniors. II; (2). Professor Talbot, Mr. Habermeyer

#### COURSES FOR GRADUATES

- 102. WATER SUPPLY ENGINEERING.—Sources and requirements of water supply; general water-works construction; pumps and pumping; design of reservoirs and elevated tanks; water-works operations and the valuation of plants.
- 103. Sewerage.—General sewerage design and construction; sewerage systems; hydraulics of sewers; and a study of run-off.
- 106. WATER PURIFICATION, SEWAGE DISPOSAL, AND GENERAL SANI-TATION.—The design, construction, and operation of water purification plants and of sewage disposal works; the study of existing plants; comparison of results and cost of construction and operation; experimental work on water filters and septic tanks; garbage disposal; general sonitation.

#### MUSIC

- 1. HISTORY OF MUSIC.—The development of music; the rise of polyphony and dramatic music; the origin and progress of the oratorio; the evolution of instruments and instrumental forms; the lives of composers. Lectures; assigned collateral readings. I, II; (2).

  Mr. SCHWARTZ
- 2. THEORY OF MUSIC.—Elementary theory and ear-training; four part harmony and analysis. I, II; (2). Mr. SCHWARTZ
  - 3. ADVANCED HARMONY AND ANALYSIS .- I, II; (3).

Mr. SCHWARTZ

40 I

4. COUNTERPOINT, CANON, AND FUGUE.-I, II; (3).

Professor MILLS

\* 5. General Theory, Free Composition.—I, II; (2½).

Professor Mills

For Preparatory Music, see School of Music Bulletin.

## PIANO

Professor C. H. MILLS, Mr. H. J. VAN DEN BERG, Miss MAY E. FLOYD, and MISS SOPHIE VOSS

- 7. First Year.—Development of technique: Czerny, Op. 229, Bks. 3, 4; Mayer and Czerny, Octave Studies; Cramer, Etudes; Jensen, Etudes; Bach, Two-part Inventions, sonatas of Haydn and Mozart; easier sonatas of Beethoven; Mendelssohn, Songs Without Words; compositions (smaller works) of Schubert, Raff, Grieg, Chaminade, Moszkowski, and others (6).
- 8. Second Year.—Czerny, Op. 740; Pacher, Octave Studies; Bach, Three-part Inventions, selections from French Suites; sonatas and other compositions of Scarlatti, Beethoven, Schubert, Schumann, Mendelssohn, Weber, Raff, Rubinstein, Saint Saens, Godard, MacDowell, and others (6).
- 9. Third Year.—Selections: Clementi, Gradus ad Parnassum; Moscheles, Op. 70; Kullak, Seven Octave Studies, Bk. 2; Bach, Well-Tempered Clavichord; sonatas and concertos by Mendelssohn, Weber, Beethoven, Hummel; selections from works of Bach, Chopin, wenka, and other modern composers (8).
- 10. Fourth Year.—Selections: Octave Studies; Clementi, Gradus, continued; Bach, Well-Tempered Clavichord, continued; Chopin, Etudes; Henselt, Etudes; sonatas by Beethoven and selections from works of modern composers of most advanced grade.

<sup>\*</sup> Music 5, I, may be taken with Course 4, II, if desired. Schubert, Schumann, Brassin, Rubinstein, Liszt, Moszkowski, Schar-

#### VOICE

- Mr. G. R. Wade, Miss Lois D. McCobb, and Miss F. Kirkup
- 12. First Year.—Tone production. Sieber, School of Velocity, and Spicker, Vocalization; songs from Schubert, Franz, and modern composers. I. II: (6).
- 13. Second Year.—Tone production. Sieber and Spicker continued. Panofka, Op. 81. Songs of German, French, and English composers. Simple selections from operas and oratorios. I, II: (6).
- 14. Third Year.—Tone production. Lutgen, Opera-vocalises, Bk. 2; Italian, French, and English songs of standard composers; solos and concerted works from operas and oratorios. I, II; (8).
- 15. Fourth Year.—Tone production; completion of Vocalises. Studies from operas and oratorios.

#### VIOLIN

Mr. G. F. SCHWARTZ

- 17. First Year.—Kreutzer Etudes; Sevick, Shiftwig Exercises, Preparatory Double Stops; sonatas by Haendel or Mozart; compositions by Minarshi, Borowski, Della. I, II; (6).
- 18. Second Year.—Scales in Octaves and thirds; arpeggios on dominant and diminished seventh chords; David School completed; Fiorillo Etudes; Mozart Sonatas; concertos by Viotti, Spohr, and others; concert pieces by Sitt, Spohr, Alard, and others. (6).
- 19. Third Year.—Special technical drill. Meerts Etudes, Rode Caprices; easier modern concertos and sonatas; concert pieces by Vieuxtemps, Sarasate, Foote, Cui. (8).
- 20. Fourth Year.—Selected concert etudes; sonatas by Beethoven, Schumann, and Brahms; modern and classic concertos. (9).

### VIOLONCELLO

Mr. G. F. SCHWARTZ

17a. First Year.—Dotzanert, Selected Studies; Furino, Polonaise; Golterman, Nocturnes; Kengel, Concertino, Op. 7.

18a. Second Year.—Lee Studies: Op. 31, No. 1; Romberg, Op. 42, 46, 65; Golterman, Concerto in G.

19a. Third Year.—Studies and pieces; orchestra and ensemble work; Lee Studies, Op. 31, No. 2; Golterman, Concerto in D; Klengel, Concertstück in D.

NOTE.—Ensemble and orchestral work is required of all special student who are sufficiently advanced. As so much depends on the individual student, it is impossible to define a set course of studies, and the foregoing outline must be taken only as a general guide to the work a student is required to cover.

- 21. UNIVERSITY ORCHESTRA.—Two hours' rehearsal once a week.  $I,\ II;\ (1).$
- 22. University Choral Society.—One hour's rehearsal once a week.  $I,\,II\,;\,(\frac{1}{2})\,.$ 
  - 23. EAR TRAINING CLASSES .- For all School of Music students.
  - 24. SIGHT SINGING CLASSES .- Open to all University students.
- 25. Public School Methops.—The so-called "Natural," "Harmonic and Melodic Series," "New American," "Modern," "Educational," "Model," "Novello," and Eleanor Smith Music Courses. Students are required to complete Music 1, 2, 11 and 6, and to pursue work as follows: Two class lessons per week in advanced sight-singing; four lessons per week in methods of teaching and conducting; and two class lessons per week in advanced ear-training.
  - 26. BAND INSTRUMENTS .- Band, orchestra, or solo work.
- 27. Ensemble Class.—Trios, Quartets, and Quintets by classical and modern composers. (Open to all students who are sufficiently advanced to undertake the course profitably.) I, II; (1).

## PALEONTOLOGY

(See GEOLOGY 1a, 16, 18, 19, 20, 21.)

### PHILOLOGY

(See the Classics, English Language and Literature, Germanic Languages and Literature, and Romance Languages and Literature.)

### PHILOSOPHY

(See also PSYCHOLOGY and EDUCATION.)

Students who make philosophy a major should take at least one year of psychology. With the exception of 1 and 10, no course may be taken before the completion of two years of University work.

1. Logic.—The principles of reasoning; detection of fallacies; evidence.  $I_{\it f}$  (3). Professor Bode

Prerequisite: One year of University work.

1b. Logic.—The same as 1. II; (3). Professor Bode
Prerequisite: One year of University work.

- 2. Introduction to Philosophy.—The relation of philosophy to modern science; problems of philosophy; representative forms of philosophic theory. II; (3).

  Professor Bode
- 3. ANCIENT AND MEDIEVAL PHILOSOPHY.—The development of speculative thought; Greek philosophers; the medieval period. I; (3).

  Professor Daniels
- 4. Modern Philosophy.—Problems and conceptions in philosophy from Descartes to the present time. Selections from the masterpieces of this period. II; (3).

  Professor Daniels
- 7. Ethics.—The beginnings and growth of morality; leading conceptions of moral theory; typical social and economic problems of the present. II; (3).

  Professor Daniels

Prerequisite: Three hours in philosophy.

- 8. ESTHETICS.—The appreciation of art and nature; place of such appreciation in life; primitive arts and appreciation; modifications of the esthetic (such as the sublime and the ugly); the fine arts. I; (3).

  Dr. NORTON
  - Prerequisite: An elementary course in philosophy or psychology.
- 9. Political and Social Ethics.—Moral principles applied to political and social relations. I; (2). Professor Daniels
- 10. THE PHILOSOPHIC THOUGHT OF THE NINETEENTH CENTURY AS REFLECTED IN ENGLISH LITERATURE.—Wordsworth; Carlyle; Emerson; Tennyson; Browning; Arnold. I; (2). Professor BODE [Not given in 1910-11.]
- 11. HISTORY AND PHILOSOPHY OF RELIGION.—The philosophical interpretation of religious consciousness; various religious concepts: God; revelation; inspiration; dogma; faith; prayer; immortality; evil; morality and religion. I, II; (2). Professor Daniels

Prerequisite: Senior or graduate standing; six hours in psychology, philosophy, or both.

15. The British Philosophers of the Eighteenth Century.—
Locke, Berkeley, and Hume. *I*; (3). Professor Bode

Prerequisite: Philosophy 2 or 3 or 4.

16. KANT.—The Critique of Pure Reason. II; (2).

Professor Bode

Prerequisite: Philosophy 15.

#### COURSES FOR GRADUATES

101. The Philosophy of Plato and Aristotle.—I, II.

Professor Daniels

102. Seminar.—Contemporary Philosophy. Present-day idealism; realism; pragmatism. I, II. Professor Bode

## PHYSICAL TRAINING

#### FOR MEN

- 1. GYMNASIUM PRACTICE.—Two hours' gymnasium drill each week. Required of freshmen. I, II; (1); arrange time. Mr. HANA
- 1a. Personal Hygiene.—Six lectures. Required in conjunction with Physical Training 1. I. Dean CLARK
- 2. GYMNASIUM PRACTICE.—Two hours each week in advanced heavy apparatus work. I, II; arrange time.

  Mr. Hana

### FOR WOMEN

- 7. Practice.—Class work and games. Required of freshmen. I, II; (1). Miss Moulton, Miss Williams, Miss Brooks
- 8. Practice.—Continuation of 7. Second year, elective. I, II; (1).

  Miss Williams
  - 9. HYGIENE.—Required of all freshman girls. I; (1).

Acting Dean FAWCETT

10. TEACHERS' COURSE.—Third year. Practice in the public schools, two hours; theory, one hour. I, II; (1).

Miss Moulton, Miss Williams

11. TEACHERS' COURSE.—Fourth year. Practice teaching in the gymnasium, two hours; theory, one hour.

Miss Moulton, Miss Landee

## PHYSICS

# INTRODUCTORY COURSES FOR UNDERGRADUATES

1. General Physics.—Lectures with class-room demonstrations; recitations; written exercises. (For sophomores in engineering, mathematics, physics, and chemistry.) I; (3). II; (2).

Professor Carman, Assistant Professor Watson, Assistant Professor Schulz, Mr. Stempel, Mr. Kemp, Mr. Hyslop, Mr. Jones

Prerequisite: Mathematics 3 or 4; registration in Physics 3.

3. Physical Measurements.—Laboratory experiments; quizzes in connection with Physics 1. I, II; (2).

Assistant Professor Schulz, Mr. Stempel, Mr. Kemp, Mr. Hyslop, Mr. Jones

Prerequisite: See Physics 1.

2a. General Physics.—Lectures, with class-room demonstrations; recitations. (For students in courses in arts and science.) I, II; (2). Assistant Professor Watson, Dr. Taylor, Mr. Woodrow Prerequisite: Completion of or registration in Mathematics 3 or 4; registration in Physics 2b.

2b. Introductory Laboratory Physics.—Physical measurements. I, II; (2.) Dr. Taylor, Mr. Woodrow

Prerequisite: See Physics 2a.

### INTERMEDIATE COURSES

14. Elementary Dynamics and Physical Applications.—Introductory to theoretical physics; the fundamental theorems in mechanics, heat, light, and electricity discussed with elementary calculus methods. Lectures and recitations. *I, II;* (3). Dr. Taylor

Prerequisite: Physics 1, 3; or 2a, 2b; Mathematics 7 and 9, or 8a.

15. Electricity and Magnetism.—Laboratory; lectures; assigned readings; reports. I, II; (2). Dr. Williams

Prerequisite: Physics 1, 3; or 2a, 2b.

16. Heat.—Fundamental heat phenomena, and elements of the mechanical theory of heat. Lectures; recitations; laboratory experiments.  $I_j$  (2). Assistant Professor Watson

Prerequisite: Physics 1, 3; or 2a, 2b.

Light.—Recitations; laboratory. Edser's Light. II; (2).
 Assistant Professor Schulz

Prerequisite: Physics 1, 3; 2a, 2b.

18. Teachers' Course.—Discussion of class-room text-books, laboratory manuals, apparatus ordering, and methods of conducting work in physics; the working out in detail of a laboratory course suitable for a high school; a course of typical experiments and manipulative exercises in the laboratory. *I*; (2). Assistant Professor Watson

Prerequisite: Physics 1, 3; or 2a, 2b.

# COURSES FOR GRADUATES AND UNDERGRADUATES

4. ELECTRICAL AND MAGNETIC MEASUREMENTS.—Exact electrical and magnetic measurements with accompanying theory. Laboratory exercises; discussions; recitations. *I, II;* (2).

Professor Carman, Dr. Williams, Mr. Smith

Prerequisite: Physics 1, 3; or 2a, 2b; Mathematics 7, 9.

20a. Light.—Special phenomena; modern theories; readings in texts of Drude, Wood, and Preston. Lectures; recitations. *I* or *II*; (2).

Assistant Professor Schulz

Prerequisite: Physics 1, 3; or 2a, 2b; Mathematics 7, 9; or 8a,

20b. Light.—Light measurements. Laboratory. Two to five periods weekly; I or II;

Prerequisite: Physics 1, 3; or 2a, 2b; Physics 17 desired.

21. RECENT ADVANCES IN PHYSICAL SCIENCE.—Lectures illustrated by experiments. One lecture weekly; I, II.

Assistant Professor KNIPP

- 23. Sound.—Lectures; recitations; experiments. Twice a week; II. Assistant Professor Watson
- 24. CONDUCTION OF ELECTRICITY THROUGH GASES AND RADIO-ACTIVITY.—An experimental course, with readings and discussions. McClung's Conduction of Electricity through Gases and Radio-activity; references to the text-books of J. J. Thomson and Rutherford, and to papers in the journals. Three times a week; I, II.

Professor Carman

- 25. Heat.—Measurements of temperature with thermo-couples, resistance thermometer, and optional pyrometers; melting and boiling points. Lectures; recitations. Le Chatelier's High Temperature Measurements. Twice a week; II. Assistant Professor Watson Prerequisite: Physics 1, 3; or 2a, 2b; Physics 16 advised.
- 26. Physics Club.—Weekly meetings of the instructors and advanced students of the department to discuss assigned papers and topics. Discussions often accompanied by experimental demonstrations. Once a week; I, II.
- 27. ELECTRON THEORY.—Cathode rays; the general properties of the electron theory of Roentgen rays; optical properties of moving media; principles of relativity; the new corpuscular theory of light; Zeeman phenomenon; electro-optics. Twice a week. I, II.

Assistant Professor Kunz

30a. Introduction to Theoretical Electricity.—Electrical oscillations. Twice a week; I, II. Professor Carman Prerequisite: Physics 1, 3, or 2a, 2b; Mathematics 9.

30b. Electricity and Magnetism.—Electrical measurements; experimental work in the more recent developments: electric waves and their application to wireless telegraphy; electrical discharge in gases. Two to five times a week; I or II. Professor Carman Prerequisite: Physics 4; 30a desired.

31. INVESTIGATION OF SPECIAL PROBLEMS.—Laboratory or design and calculation. Three to five times a week; I, II.

Professor Carman, Assistant Professors Knipp, Watson, Schulz and Kunz

Prerequisite: One semester of physics in advance of Physics 1, 3. 32. MATHEMATICAL PHYSICS.—Special topics in theoretical physics.

- (a) DYNAMICS.—First part: dynamics of a material system; determination of the center of gravity; of moment of inertia and of potentials; second part: the principle of least action; Lagrange's equations; motions of the top and applications. Three times a week; I, II. Assistant Professor KUNZ
- (b) ELECTRODYNAMICS.—The principles of electrodynamics; Maxwell's theory and modern modifications; applications of spherical harmonics, conjugate functions, potential theory, and theorems of the vector analysis; theory of electromagnetic waves. Lectures; collateral reading. Four times a week; I, II. Assistant Professor Kunz

Prerequisite: Differential Equations; Physics 30a.

(c) Thermodynamics.—Fundamental principles with applications to physical and chemical phenomena. Lectures; recitations. Three times a week; I, II. Assistant Professor Kunz

[Probably to be given in 1911-12.]

SEMINAR AND THESIS.—Three to five times a week; I, II.
 Professor CARMAN, Assistant Professors KNIPP, WATSON, SCHULZ, and KUNZ

#### PHYSIOLOGY

Of the courses outlined below, 1 and 2 are designed primarily for medical students, or for those intending to specialize in histology or physiology; course 4, for prospective teachers of high-school biology or students from other colleges desiring a course in general physiology; courses 3, 5, and 103 may be taken by seniors in the medical course or by graduate students.

The laboratory is equipped for the pursuance of research involving the use of apparatus necessary for physiological, histological, bacteriological, and chemical work.

1. HISTOLOGY.—Fundamental mammalian tissues; microscopic anatomy of the organs. Lectures and laboratory. (Full medical eredit in histology.)  $I_j$  (5). Assistant Professor Becht

Prerequisite: Physics 2a; Chemistry 1, 2, 3, 5a, 9, 9c; Zoology 2, 3.

2. Major Course.—Physiology of nerve and muscle; circulation; respiration; secretion; digestion, metabolism. Lectures and laboratory. (Full medical credit in physiology.) II; (10).

Assistant Professor BECHT, Mr. KEETON

Prerequisite: The same as for Physiology 1.

- 3. UNDERGRADUATE THESIS.—(For undergraduates who wish a thesis course.)
- 4. MINOR COURSE.—Practical hygiene; teaching physiology in high schools. Lecture demonstrations; recitations; laboratory work. I; (5).

  Mr. KEETON

Prerequisite: Chemistry 1; Zoology 10.

- 5. Special Physiology.—(For advanced students who wish to take up a special line of work not specified in one of the other courses and not involving the preparation of a thesis.) Laboratory; conferences. I, II; (3 hours or more). Dr. Stanley, Mr. Keeton Prerequisite: The consent of the head of the department.
  - 6. HYGIENE.—See Physical Training 9.

### COURSES FOR GRADUATES

103. Research.

Assistant Professor Becht

111. PHYSIOLOGICAL JOURNAL CLUB.—Meetings of the teaching staff of the department, the graduate students, and advanced undergraduates to discuss articles of interest in current journals. Each student is expected to report a paper about once in two months.

### POLITICAL SCIENCE

(See also Economics, History, and Sociology.)

### COURSES FOR UNDERGRADUATES

Courses 1, 3, and 4 listed below are intended to furnish a general survey of the field of national, state, and city government in the United States and should be taken by all students who expect to specialize in political science.

1. AMERICAN FEDERAL GOVERNMENT.—National government in the United States; historical development; organization; powers; limitations; practical working. *I*; (3).

Professor GARNER, Mr. GARDNER

Prerequisite: Thirty hours of University work.

3. American State Government.—The evolution of the American state constitution from the colonial charter; powers, rights, and

obligations of the states under the Federal Constitution; methods of formation and of admission to the Union; comparative study of the organization of state government; constitutional resemblances and diversities. (A continuation of Course 1; may be taken independently.) II; (3).

Professor Garner, Mr. Gardner

Prerequisite: Thirty hours of University work.

4. Municipal Government.—The organization of city government in the United States; the growth of cities; the powers and liabilities of municipal corporations; the problems of governing the modern municipality; urban transportation; police; light and water supply; charities; education; municipal ownership of public utilities. Lectures; assigned readings; reports. *I*; (2). Professor Garner

Prerequisite: Course 1 or 3 or the equivalent of either.

- 9. ELEMENTS OF JURISPRUDENCE.—The origin, growth, and nature of positive law. A systematic arrangement and analysis of the concepts of law. II; (3).

  Dr. Dodd
- 16. THE GOVERNMENT OF ILLINOIS.—The organization and administration of state and local government: constitutional development; the legislature; the judiciary; the executive; state officers and institutions; county, town, and municipal government. *I*; (2).

Associate Professor Fairlie

17. Elementary Law.—The fundamental principles of the common law and the methods by which legal rights, both of person and property, are defined and enforced. (To present to students unable to take a technical law course, a comprehensive view of the sphere of human action subject to the control of the courts through the application of the rules of private law.) I; (2).

## COURSES FOR GRADUATES AND QUALIFIED UNDERGRADUATES

2a. British Government.—Political institutions in the United Kingdom and the British possessions; the Crown; the Cabinet; the House of Commons; the House of Lords; the party systems; the courts of law; local government; government in the Crown Colonies and the self-governing colonies; recent developments and proposed changes. I; (3).

Associate Professor Fairlie

Prerequisite: Graduate standing; or senior standing with six hours in Political Science.

2b. CONTINENTAL EUROPEAN GOVERNMENTS.—The national political systems of France, Germany, Austria-Hungary, Italy, and Switzerland; constitutional beginnings; political organizations; methods

of legislation and administration; constitutional guarantees for the protection of individual rights. II; (3). Professor Garner Prerequisite: Graduate standing; or senior standing with six hours in Political Science.

5. The Federal Constitution.—The federal system of the United States; the origin and nature of the federal constitution and its development through judicial decision; the constitution in its relation to the geographical divisions of the United States; jurisdiction of the Federal Courts; state and national citizenship; powers of the national government in matters of taxation, commerce, money, war, and foreign relations, and consequent limitations on the powers of the states; effect of later amendments on the federal system. Leading cases; text-book work; lectures. *I*; (3). Dr. Dodo

Prerequisite: Economics 1 or Political Science 1.

6. International Law.—The development of the law of nations; its nature, source, and present status; the equality of states; the doctrine of intervention; the laws of war and peace; the rights and duties of neutrals; the arbitration movement. Lectures, assigned readings, and reports. I; (3).

Professor Garner

Prerequisite: Graduate or senior standing.

7. AMERICAN DIPLOMACY.—The genesis and present organization of the Department of State; the diplomatic service; the treaty making power; the methods and traditional principles of the foreign policy of the United States; historical review of the principal diplomatic controversies between the United States and foreign powers from the foundation of the government to the present time; the rise of the United States to the position of a world power. II; (2).

Professor Garner

Prerequisite: Graduate or senior standing.

8. COLONIAL GOVERNMENT.—The colonial administration of Great Britain, France, the Netherlands, and the United States; the policy of these countries in dealing with their more important dependencies. *I*: (2). Dr. Dodo

Prerequisite: Five hours in history or political science.

10. Administrative Law.—Administrative law and its relation to constitutional law; the principle of the separation of powers as a rule of law; judicial control over administrative officials; legal powers and liabilities of public corporations as administrative authorities; American and foreign theories of administrative law. Study of cases and lectures.  $II_i$  (3).

Prerequisite: Senior standing; or junior standing with course 5.

11. The Police Power.—The nature and limits of the police power; the promotion of the general welfare through the regulation of the use of liberty and property; legislation in the interests of the public safety, the public health, the public morals, and the good order of the community. II; (2).

Dr. Dobr.

Prerequisite: Five hours in political science; should be preceded

by course 5.

12. NATIONAL ADMINISTRATION IN THE UNITED STATES.—The administrative powers of the President and Congress; the executive departments and the administrative services of the national government; judicial administration and the relation of the courts to the administrative authorities. II; (3). Associate Professor Fairlie

Prerequisite: Course 1.

13. State and Local Administration in the United States.—
The administrative powers of the state executive and legislature; of state officers and institutions; the systems of local government; the relations between state and local authorities; the courts and administrative officials. II; (3).

Associate Professor Fairlie

Prerequisite: Course 3.

[Not given in 1910-1911; given in 1911-1912.]

14. Political Parties.—The development of political parties; their organization and influence on the government, mainly in Great Britain and the United States; recent legislation governing primaries and nomination methods in this country. II; (2).

Associate Professor FAIRLIE

Prerequisite: One course in Political Science.

#### COURSES FOR GRADUATES

- 101. MUNICIPAL ADMINISTRATION.—First semester: The development of cities; the organization of municipal government and its relation to the central government; political methods and reform movements in cities; comparisons between conditions in the United States and European countries; recent tendencies in this country. Second semester: Municipal functions in the United States and Europe; police, fire, and health departments; schools and charities; municipal public works; street railways; lighting plants. (Either semester may be taken independently of the other.) I, II.

  Associate Professor Farelle
- 102. THE NATURE OF THE STATE.—The principles, methods, and relations of political science; the origin, nature, forms, and func-

tion of the state; sovereignty and liberty; citizenship and nationality; constitutions; principles of political organization. I.

Professor Garner

103. SEMINAR IN POLITICAL SCIENCE AND PUBLIC LAW.—Special problems; reports; discussions and criticism. (The research work of candidates who are writing theses is under the supervision of some instructor, to whom they report frequently.) I.

### PSYCHOLOGY

(See also Philosophy and Education.)

Students who do major work in psychology should take a minimum of six hours in philosophy, four of which will be counted as a part of the total number of hours required for the major in psychology. The courses specially advised are Philosophy 3 and 4.

Psychology 1 and 2 offer a continuous course and cannot be taken separately for credit. These courses are the prerequisites for all further courses in psychology. No student may do graduate work in psychology without having had these two introductory courses and at least three credit hours in philosophy.

### INTRODUCTORY COURSES

1. ELEMENTARY PSYCHOLOGY.—The structure and functions of the nervous system and the end-organs; sensation, perception, imagination, and memory. (For beginners in psychology; must be followed by course 2 for credit; not to be taken later than the junior year.) I; (3).

Professor Colvin, Assistant Professor Arps Prerequisite: One year of University work.

2. ELEMENTARY PSYCHOLOGY CONTINUED.—The psychology of the thought processes and the general principles of learning; the principal phenomena of feeling and volition as distinguished from those of the intellect. II; (3).

Professor Colvin, Assistant Professor Arps

10. THE EXPERIMENTAL PSYCHOLOGY OF THE LEARNING PROCESSES.—The technique of the modern psychological laboratory for the more accurate investigation and understanding of children, both normal and backward. Lectures and laboratory. (For the prospective teacher.) Meetings held on Saturday mornings. I, II; (3).

Dr. SUTHERLAND

Prerequisite: Psychology 1 and 2. By special permission this requirement may be waived in the case of properly qualified teachers who are at work in the field.

COURSES FOR ADVANCED UNDERGRADUATES AND GRADUATES

No student admitted to any of these courses without at least junior standing.

3. EXPERIMENTAL PSYCHOLOGY.—The technique for investigation of simpler mental processes; the accurate observation and recording of these processes. Individual differences emphasized and independent thought encouraged. *I*; (3).

Dr. SUTHERLAND, Mr. KELLEY

Prerequisite: Psychology 1, 2.

4. Experimental Psychology Continued.—(A continuation of 3; may not be taken separately.) II; (3).

Dr. SUTHERLAND, Mr. KELLEY

 GENETIC PSYCHOLOGY.—The development of the child from infancy through adolescence. Growth of the nervous system and of the body traced in connection with the mental development. II; (2).
 Professor COLYIN

Prerequisite: Psychology 1 and 2.

6. Comparative Psychology.—Animal behavior and its interpretation. The literature reviewed with particular emphasis on the problems now under investigation at the various laboratories; the learning process analyzed in the light of experimental results. I; (2).

Assistant Professor ARFS

Prerequisite: Psychology 1 and 2.

Physiological Psychology.—The physiology and psychology of the central nervous system. Lectures and laboratory periods. I;
 Dr. Sutherland

Prerequisite: Psychology 1 and 2.

12. MINOR PROBLEMS IN EXPERIMENTAL PSYCHOLOGY.—Special investigations by the student. Laboratory. I, II; (2 to 5).

Professor Colvin, Assistant Professor Arps, Dr. Sutherland Prerequisite: Psychology 3 and 4.

## COURSES FOR GRADUATES

101. RESEARCH.—Advanced problems in experimental psychology and in comparative and genetic psychology. I, II.

Professor Colvin, Assistant Professor Arps, Dr. Sutherland 102. Contemporary Literature.—The most important problems of contemporary psychology with their historical bearings. I, II.

Professor Colvin

- 111. The Psychology of the Intellectual Processes.—
  Sensation; perception; attention; memory; imagination; judgment; reasoning. II.

  Assistant Professor Arps
- 113. ABNORMAL PSYCHOLOGY.—Defects in the different fields of sensation: illusions; hallucinations; automatisms; trance; hypnosis; suggestion dreams; the subconscious; defects of speech; defects of emotion and volition; defects of memory and association; obsessions; impulsions; genius and insanity; temperament and personality. II.

  Dr. SUTHERLAND
- 114. The Psychology of Memory.—The functions of memory in guiding behavior and action; the dependence of memory on the various sense departments, on age, and on general intelligence; the analysis of memory consciousness; interpretation of memory curves, imaginal types; associative aids; unconscious falsification of memory; memory and the acquisition of skill; practice curves and the analysis of consciousness in different practice stages.

Assistant Professor ARPS

[Not offered in 1910-1911.]

# PUBLIC SPEAKING

(See RHETORIC.)

# RAILWAY CIVIL ENGINEERING

31. RAILWAY YARDS AND TERMINALS.—The theory and practice of the proper location of frogs and switches; the design of yard tracks to insure efficiency of operation; the details of track construction. II; (3).

Mr. FOOTE

Prerequisite: Civil Engineering 4.

32. RAILWAY STRUCTURES.—The details of railway structures; problems in original design. II; (2). Mr. FOOTE Prerequisite: Civil Engineering 4; Theoretical and Applied

Prerequisite: Civil Engineering 4; Theoretical and Applied Mechanics 7, 8, 9.

33. Economic Theory of Railway Location.—The influence of location upon the net earning power of a line of railway. I; (4).

Mr. FOOTE

 $\label{eq:continuous} Prerequisite: \ \mbox{Civil Engineering 4; Theoretical and Applied Mechanics 7, 8.}$ 

35. Signal Engineering.—The general arrangement of automatic block signals on single and double track lines; interlocking

systems for terminals; details of construction and of operation.

I; (1).

Mr. FOOTE

Prerequisite: Civil Engineering 4.

50. Seminar.—Discussion of current topics; review of railway journals; assigned topics and reports. II; (1). Mr. FOOTE

# RAILWAY ELECTRICAL ENGINEERING

61. Traction.—Electric railway equipment and practice. The work of the course is exemplified by the use of the electric test car owned by the department. (For students in electrical engineering or railway mechanical engineering.) II; (2). Mr. Kendall

Prerequisite: Theoretical and Applied Mechanics 8; Electrical

Engineering 16, 6; or 3, 24.

63. Railway Laboratory and Road Tests.—Electrical laboratory problems and electric car and dynamometer car tests to determine train resistance and power consumption for electric cars and steam trains. II; (3).

Mr. Kendall

Prerequisite: Railway Engineering 64; Electrical Engineering 24.

64. Electric Railway Practice.—The types of electric railway systems and apparatus; the engineering problems met with in preliminary road location, in the selection of electrical equipment, and in its operation and maintenance.  $I_j$  (3). Mr. Kendall

Prerequisite: Theoretical and Applied Mechanics 8; Electrical

Engineering 5 and 24.

65. Electric Railway Practice.—The problem of steam road electrification.  $II_{\mathcal{F}}$  (3). Mr. Kendall

Prerequisite: Railway Engineering 64.

### COURSES FOR GRADUATES

102. Locomotive Design.—Modern practice concerning steam pressure, compounding, superheating.

Professor Goss

106. LOCOMOTIVE OPERATION.—Determination of train resistance and locomotive tractive effort; application of these and others matters in the establishment of tonnage ratings.

Professor Schmidt

108. ELECTRIC RAILWAY PRACTICE.—The design, selection, operation, and maintenance of electric railway equipment; central station, sub-station, rolling stock, and line equipment. Mr. Kendall

110. RAILWAY LOCATION.—The effects of the location of a railway upon its earning capacity; the engineering and economic problems met with in original location, as well as in the relocation and reduction of grades of existing lines.

Mr. FOOTE

### RAILWAY MECHANICAL ENGINEERING

1. Locomotives.—The mechanics of the locomotive; problems relating to its operation; the engine and valve mechanism; counterbalancing; the determination of tractive effort; tonnage rating problems; the development of types. The course is co-ordinated with courses 2 and 8. I; (2).

Professor Schmidt

Prerequisite: Theoretical and Applied Mechanics 9; Mechanical Engineering 3, 15, 16.

2. LOCOMOTIVE DESIGN.--Calculations and design of engine and boiler details; current standards and proportions. Drafting room systems. I; (3). Mr. WILLIAMSON

Prerequisite: Mechanical Engineering 3, 4, 5, 15, 16; Theoretical and Applied Mechanics 9; registration in Railway Engineering 1.

- 3. Shops and Auxiliary Equipment.—The design and equipment of railway shops and roundhouses; their management and organization, supplemented by shop visits; water purifying plants and pumping stations; air-brake equipment. II; (2). Mr. Williamson
  - Prerequisite: Mechanical Engineering 3, 4; Chemistry 1b or 1a.
- 4. LOCOMOTIVE PERFORMANCE.—Locomotive boiler and engine performance; the influence upon performance of combustion rate, steam pressure, speed, cut-off and other valve relations, compounding, and superheating. I; (2).

  Mr. WILLIAMSON

Prerequisite: Theoretical and Applied Mechanics 8; Mechanical Engineering 3, 4, 5, 15, 16.

- 7. Advanced Design.—Problems in locomotive and car design. II; (3). Professor Schmidt, Mr. Williamson
  - Prerequisite: Railway Engineering 2.
- S. Dynamometer Car Tests.—Investigation of train resistance and locomotive tractive effort, by the use of the railway test car in trains on the Illinois Central Railroad; discussion and exemplification of the application of the results to the determination of tonnage ratings.  $I_j$  (2). Professor Schmidt, Mr. Marquis

Prerequisite: Open to seniors in railway courses only.

10. SEMINAR.—Discussion of current topics and review of railway journals. Assigned topics and reports. I, II; (1).

Professor SCHMIDT, Mr. KENDALL

Prerequisite: Open to seniors in railway courses only.

11. RAILWAY TESTS.—Train resistance tests on steam roads and work with the electric test car. For students in other departments of the College of Engineering. II; (2).

Mr. Williamson, Mr. Marquis, Mr. Kendall

Prerequisites: Mechanical Engineering 3; Electrical Engineering 6.

30. Thesis.—Independent solution of some problem or investigation of some subject. The thesis may consist of a design or of an original experimental investigation, or it may be the analysis and discussion of data already in existence. II; (3).

Professor Schmidt, Mr. Marquis, Mr. Williamson, Mr. Kendail, Mr. Foote

# RHETORIC

(See English.)

# THE ROMANCE LANGUAGES AND LITERATURE

### FRENCH

### FOR UNDERGRADUATES

1. Elementary Course.—Grammar; pronunciation; reading of simpler modern authors; composition; conversation. I, II; (4).

Associate Professor Carnahan, Dr. Jones, Dr. Sbedico, Dr. Blondheim, Mr. Scheifley, Mr. Mantz

- 2. Modern Prose, Poetry, and Drama.—Rapid reading of representative modern authors; advanced syntax and composition. I, II; (4). Dr. Blondheim, Mr. Scheifley, Mr. Mantz Prerequisite: French 1.
- 3. Intermediate Prose Composition and Conversation.—Conducted entirely in French, giving facility in idiomatic expression in writing and speaking. Readings; themes; talks upon France and French life. I, II; (3).

  Dr. Blondheim

Prerequisite: French 2.

Note: This course is required of those who expect the recommendation of the department to teach French.

- ADVANCED COMPOSITION.—A continuation of French 3 with special emphasis upon advanced syntax. I, II; (2). Mr. Scheifley Prerequisite: French 3.
- 8. Modern French Drama.—The drama in France from the beginning of the nineteenth century to the present time; rapid

translations; sight reading; lectures; reports on collateral reading. I, II; (2). Mr. Scheifley

Prerequisite: French 2.

24. THE SEVENTEENTH CENTURY.—The greater masterpieces of the seventeenth century in France; the drama. I, II; (2).

Mr. SCHEIFLEY

Prerequisite: French 2.

### FOR ADVANCED UNDERGRADUATES AND GRADUATES

10. GENERAL SURVEY OF FRENCH LITERATURE.—The literary masterpieces of France; the main currents of French literature from the beginning to the present time. *I*, *II*; (2).

Associate Professor Carnahan

Prerequisite: French 2.

Note: This course is strongly recommended to those who desire the endorsement of the department to teach French.

21. Modern French Novelists.—The novel in France from the beginning of the nineteenth century to the present time. Hugo; de Vigny; Balzac; Flaubert; de Maupassant; Daudet; Zola; living writers. Lectures; reports on collateral reading. I, II; (2).

Associate Professor CARNAHAN

Prerequisite: French 8, 10, or 24.

25. Course for Teachers.—The various methods of teaching French in this country and abroad; actual contact with class-room problems. *I*; (1).

Associate Professor CARNAHAN, and other members of the department.

Prerequisite: Twenty-four hours' credit in French.

### FOR GRADUATES

102. OLD FRENCH READINGS.—First semester: Chrétien de Troyes and the court epic; second semester: Readings from Marie de France, the prose chroniclers, and the dramatists of the middle ages. I, II.

Dr. BLONDHEIM

103. OLD FRENCH PHONOLOGY AND MORPHOLOGY.—Development of Old French from Vulgar Latin. I, II.

Associate Professor CARNAHAN

125. SEMINAR.—Research in special fields of French and other Romance literatures.

### TTALTAN

### FOR UNDERGRADUATES

1. ELEMENTARY COURSE.—Grammar; composition; conversation. Bowen's Italian Reader; Marinoni's Italian Reader; De Amicis' Novelle; Manzoni's I Promessi Sposi. I, II; (3). Dr. SBEDICO

Prerequisite: One year of university work in French, Spanish,

or Latin.

2. LITERARY COURSE.—First semester: Rapid reading from the works of the Italian writers of the nineteenth century. Second semester: Dante: Vita Nuova; Inferno. Selections from Boccaccio's Decameron. I, II; (2). Dr. JONES

Prerequisite: Italian 1.

# SPANISH

#### FOR UNDERGRADUATES

1. ELEMENTARY COURSE.—Grammar and easy reading; the acquisition of the ability to understand spoken Spanish. I, II; (4).

Assistant Professor Fitz-Gerald, Dr. Seymour, Dr. Sbedico, Mr. Hendrix

- 2. Conversation and Composition.—Reading of modern prose; conversation; composition. The vocabulary of everyday life is emphasized. Commercial correspondence. I, II; (2). Dr. Seymour Prerequisite: Spanish 1.
- 3. General Introduction to Spanish Literature.—Rapid reading of selected works of representative modern authors; composition and advanced syntax; the most important authors of the seventeenth century. I, II; (3). Dr. Seymour

Prerequisite: Spanish 1.

4. Advanced Conversation and Composition.—Commercial correspondence; reading of commercial Spanish. I, II; (2).

Dr. SEYMOUR

Prerequisite: Spanish 2.

### FOR ADVANCED UNDERGRADUATES AND GRADUATES

11. THE SPANISH DRAMA OF THE SIXTEENTH AND SEVENTEENTH CENTURIES.—Encina; Torres Naharro; Lope de Vega; Lope de Rueda; Tirso de Molina; Calderon; Ruiz de Alarcon; Moreto; Rojas Zorilla; Schack's Dramatic Literature. I, II; (3). Dr. SEYMOUR Prerequisite: Spanish 3.

12. The Novela of the Golden Age.—The political and social conditions in Spain from 1560 to 1700; the various kinds of prose fiction of the period; *Don Quixote* and the *Novelas Ejemplares* of Cervantes. *I, II;* (3). Assistant Professor Fitz-Gerald

Prerequisite: Spanish 3.

#### FOR GRADUATES

118. THE EARLY SPANISH SATIRISTS.—Juan Ruiz, Martínez de Toledo, Pero López de Ayala. The life of the times as shown by the satirists. I. II.

Dr. SEYMOUR

120. OLDEST MONUMENTS OF THE SPANISH LANGUAGE.—Historical grammar and palaeography. I, II. Assistant Professor Fitz-Gerald

121. ORIGINS OF THE SPANISH DRAMA.—Lectures; private reading. I, II. Assistant Professor Fitz-Gerald

#### THE SCANDINAVIAN LANGUAGES AND LITERATURE

(See GERMANIC LANGUAGES AND LITERATURE.)

#### THE SOCIAL SCIENCES

(See Economics, Accountancy, Commercial Law, History, Political Science, and Sociology.)

#### SOCIOLOGY

1. The Principles of Sociology.—The realities that make up the general life of a people; relation between general sociology and psychology, history, economics, and political science; the individual and society; customs, institutions, organizations, social classes and castes; changes in social realities; effects due to climate, natural resources, waterways, railways; effects upon the general life of the people due to the forms of property possessed and the manner of its distribution; effects of race traits, temperament, habits; effects of different forms of prevalent activity on each other; order; progress. I; (3).

Prerequisite: Junior standing or equivalent preparation; should be preceded or accompanied by Psychology 1 and 7.

2. Social Organization and Social Control.—1. The combination of the activities of a people; "public opinion"; "public conscience"; "public sentiment"; "the will of the people"; "the character of a nation"; eras of productivity and decay; leadership;

influence; agitation; mobs and "crazes"; customs; conventionalities; fashions; parties; sects. 2, The influence of mass activities upon the individual; the control of conduct, beliefs, wants, ambitions by law, religion, education, public opinion, and other subtler agencies; the rational motives of conduct revealed by analysis of the facts of social life. II; (3).

Professor HAYES

Prerequisite: Sociology 1.

3. Comparative and Genetic Sociology.—Modes of social activity among people at different stages of progress, savage, barbarous, and civilized; family organization; practical arts; economic wants and institutions; origins of government and law; codes of morality; religions; inductions from such facts, including a theory of social evolution and of the method of progress. *I*, (2).

Professor HAYES

Prerequisite: The same as for Sociology 1; should be preceded or accompanied by Sociology 1.

5. Charities and Corrections.—The causes, prevention, and treatment of poverty and crime. (Open to all juniors and to sophomores who have had one semester in Economics or Political Science.) II; (3).

Professor Hayes

THE LABOR PROBLEM.—Certain courses given by allied departments may be counted as part of the major work of students whose major subject is Sociology. Among these are Economics 12, THE LABOR PROBLEM, and Economics 21, SOCIALISM AND SOCIAL REFORM.

#### COURSES FOR GRADUATES

101. SOCIOLOGICAL METHOD.—The method of advancing the science of sociology; adaptability to sociological investigation of the methods described in certain important works on methology.

Professor HAYES

[Not given in 1910-1911.]

This course is intended for graduate students who have taken or are completing courses 1, 2, 3, 5.

102. The Development of Sociology.—A reading course in the works of the writers who have contributed most to the development of sociology; discussions with the instructor. I, II. Professor Haves Prerequisite: A good reading knowledge of German or French.

150. Seminar.—One session of two hours each week. Open to graduates only. I, II. Professor HAYES

#### THREMMATOLOGY

1. The Principles of Evolution Applied to the Improvement of Domesticated Animals and Plants.—Variation, its extent and causes; relative stability and instability of living matter; reflex action, habit, and instinct, bearing upon the question of inheritance of acquired characters; the origin, correlation, and disappearance of characters; transmission and the laws of heredity as developed by the statistical method of study; power of selection to modify type. II; (5).

Professor Davenport

Prerequisite: Two years of University work, including ten credits

in biology.

2. Investigation and Thesis.—I, or II; (5).

Professor DAVENPORT

#### VETERINARY SCIENCE

In the department of veterinary science the student is instructed in subjects relating to the prevention of disease among domestic animals, treatment when affected by disease, and the latest and best remedies for the cure of disease.

- 2. VETERINARY MATERIA MEDICA.—Agents used for the cure of disease and injury, and for the preservation of health among domestic animals. Lectures; recitations. *I*, *II*; (5). Professor McIntosh
- 4. Anatomy, Physiology, and Diseases of Domestic Animals.—Veterinary anatomy; physiology; diseases of the organs of mastication, digestive organs, respiratory organs; the organs of circulation, lymphatic system, the urinary organs, and the skin. I; (5).

Professor McIntosh

- 5. Anatomy, Physiology, and Diseases of Domestic Animals.

  —Anatomy, physiology, and disease of the nervous system, bones, joints, feet, eye, and generative organs; epizootic and contagious diseases; catarrhal fever; pyemia; speticenia; rheumatism; tuberculosis; fistula of the withers; poll-evil; wounds; internal parasites of domestic animals. II; (5).

  Professor McIntosh
- 6. CLINIC.—A free clinic is held every Saturday morning from ten to twelve o'clock. Animals are brought to be examined, operated upon and prescribed for. This class is of signal benefit to the student as he has the opportunity of seeing the cases and of assisting in the work. I, II; (1). Professor McIntosu

Prerequisite: Registration in Veterinary Science 4 and 5.

#### ZOOLOGY

(See also Entomology, Botany, and Physiology.)

Courses 10 and 2 constitute a general survey of the subject, involving a year's work, and form the best introduction to later work in zoology. In the second year, a student may choose as a line of work, either morphological, experimental, ecological, faunistic, or systematic courses. The courses on microscopical technique (3) and current literature (20) are of value in all lines of work. Medical students should take courses 3 and 6 in the second year. Those preparing to teach zoology in the high school will find field zoology (17a, 17b) and ecology (9) of especial value, and should not overlook the importance of a course in general entomology.

The equipment of the department includes the usual apparatus, microscopes, microtomes, paraffin baths, demonstration material, and reagents. The various special laboratories are equipped with special apparatus and demonstration material in accordance with their particular needs. Provision is made for meeting such special demands as may arise in connection with individual work.

The University Museum contains series of mounted vertebrates, of Ziegler embryological models and of alcoholic material in all groups; these are available as needed for either teaching or research. The collections and library of the Illinois State Laboratory of Natural History are freely available to advanced students. They are rich in that which pertains to fresh-water biology. The private library and collections of the head of the department, which contain much material on invertebrate morphology and on parasitism, are also placed at the disposal of graduate students.

#### COURSES FOR UNDERGRADUATES

10: GENERAL ZOOLOGY.—Animal biology; general principles of structure; function and inter-relation of animal forms; origin and development of animal life; the simpler and best-established generalizations in zoological theory. Lectures; laboratory; quiz work. I, or II; (5).

Professor Ward, Associate Professor Zeleny, Dr. Adams, and assistants

2. Vertebrate Zoology and Comparative Anatomy.—Structure and functions of vertebrate organs; classification of the Chordata; outline of the early stages of vertebrate embryology and of the vertebrate tissues; systems of organs considered in respect to their anatomy, function, ontogeny, and evolution in the vertebrate series;

anatomical studies of selected types of the Chordata, including an ascidian, Amphioxus, Bdelostoma, a shark's head, a teleost, Necturus, and a mammal. Lectures; laboratory; quiz work. II; (5).

Mr. ALLEN

Prerequisite: Zoology 10.

17b. FIELD ORNITHOLOGY.—The birds of the vicinity. Identification; food relations; seasonal distribution; migration activities.
(Students are advised to provide themselves with opera or field
glasses.) Field work, 2 credits; laboratory, 1 credit. II; (2 or 3).

Associate Professor SMITH

#### COURSES FOR GRADUATES AND UNDERGRADUATES

3. MICROSCOPICAL TECHNIQUE AND GENERAL VERTEBRATE EMBRY-OLOGY.—Theory and practice of microscopical technique; vertebrate embryos in early stages of development; methods of fixation, embedding, section cutting, staining, and mounting; preparation of embry-ological material for use in study of introductory embryology.  $I_f$  (3). Mr. Allen

Prerequisite: Zoology 10, 2.

6. Vertebrate Organogeny.—Development of the organs of the vertebrate body. Lectures; assigned readings in a text-book of human embryology; laboratory studies on embryos of the chick and pig. (A continuation of Course 3; for medical students and others.) II; (3). Mr. Allen

Prerequisite: Zoology 10, 2, 3.

9. Animal Ecology.—The relation of animals to their natural environment; processes of change in environment and their influence upon animal life; the local fauna and the conditions under which it lives; methods of observation and making notes and collections. Insects, mollusks, reptiles, amphibians, and fishes. Field work; laboratory; assigned reading; reports. II; (5). Dr. Adams

Prerequisite: Zoology 10.

11. Principles of Zoogeography.—The geographic distribution of animals, particularly the faunas of North America and of Illinois; the fauna in its relation to the complete environment (climate, physiography, geology, vegetation) and from the standpoint of its origin and its dynamic relations. Lectures; laboratory work on maps; field excursions. I; (3 or 5).

Dr. Adams

Prerequisite: Zoology 10.

13. Experimental Embryology and Regeneration.—The factors concerned in individual development. Lectures and demonstrations. (Open only to juniors and seniors, except by special permission.)  $I_{ij}$  (2). Associate Professor Zeleny

Prerequisite: Zoology 10.

13a. EXPERIMENTAL EMBRYOLOGY AND REGENERATION.—(LABORATORY)—Individual work on definite problems. I, II; (1 to 5).

Associate Professor Zeleny

Prerequisite: Zoology 10, 13.

15. Variation and Heredity.—The factors of organic evolution; the principles of animal breeding. Lectures and demonstrations. II; (2). Associate Professor Zeleny

Prerequisite: Zooloby 10, 13.

15a. Variation and Heredity.—(Laboratory.)—Individual work on definite problems. I, II; (1 to 5).

Associate Professor Zeleny Prerequisite: Zoology 10, 13, 15.

17a. Field Zoology.—The animal life of a restricted locality. Collection, preservation, and identification of various kinds of animals; observations on the habits and life histories of selected forms. *I*; (3).

Associate Professor Smith

Prerequisite: Zoology 10.

17c. ADVANCED FIELD ZOOLOGY.—More restricted problems in connection with the local fauna; taxonomic or distributional problems. (A continuation of courses 17a and 17b.) I, II; (3 to 5).

Associate Professor Smith

Prerequisite: Zoology 10; 17a or 17b.

5. ANIMAL BEHAVIOR.—Reactions of the lower animals to external stimuli; results of experimental work on the influence of light, heat, gravity, and chemical substances, considered with reference to the habits of animals in their normal environment; studies of sense organs and adaptive structures. Lectures and demonstrations. II; (2).

Prerequisite: Zoology 10, or Psychology 1.

[Not given in 1910-1911.]

7. THE STRUCTURE AND FUNCTIONS OF THE VERTEBRATE NERVOUS SYSTEM.—Structure of the vertebrate nervous system; grouping and chaining the neurones to form the central and peripheral nervous organs; the nervous impulse; stimulation of the sense organs;

various reflex actions. Dissections; preparation of nervous tissues for the microscope; experimental physiological work. Lectures and laboratory.  $I_i$  (3).

Prerequisite: Zoology 10. [Not given in 1910-1911.]

- 29. Advanced Animal Ecology.—Special problems in ecology, distribution, and faunas, with reference to the interpretation of the relation between animals and their environments. Conferences; laboratory; field work. I, II; (2 to 5).

  Dr. Adams
- 21. Introduction to Zoological Research.—Investigation of topics, usually repeating the work of earlier investigators; the morphology, life history, or reciprocal relations of invertebrate forms. Laboratory; conferences; assigned reading. *I, II;* (2 to 5).

Professor WARD

Prerequisite: One year in zoological courses.

20. Current Literature.—Meetings of the instructors and advanced students of the department for the presentation and discussion of the results of recent zoological investigation. (Open to all students of zoology; should be taken by those intending to graduate with a thesis.) I, II; (1). Associate Professor Zeleny Prerequisite: One year of Zoology.

8. Thesis Investigation.—Individual work on assigned topics. I, II; (5).

Professor Ward, Associate Professor Smith, Associate Professor Zeleny, Dr. Adams

Prerequisite: Two years in zoological courses.

#### COURSES FOR GRADUATES ONLY

- 103. General Embryology.—History of the germ cells; maturation; fertilization; theories of development and inheritance; recent experimental researches in the mechanics of development and the correlative differentiation of organs. Conferences and laboratory work. I, II.

  Mr. Allen
- 107. Parasitology.—Structure and life history of animal parasites; their relations to disease. Conferences; assigned readings; individual laboratory problems. *I, II.* Professor Ward
- 113. Experimental Zoology.—Assigned problems in experimental embryology, regeneration, variation, and heredity. I, II.

  Associate Professor Zeleny

117. FAUNISTIC ZOOLOGY.—Problems in taxonomy, distribution, and ecology; field work, conference, and lectures. This work is favored by a natural history survey of the state now in progress at the University; students have the advantage of the collections, library, apparatus, and operations of this survey. I, II.

Associate Professor SMITH, Dr. ADAMS

121. INDIVIDUAL RESEARCH COURSES .--

(a) Zoological problems. Professor Ward

(b) Systematic and faunistic zoology.

Associate Professor SMITH

(c) Zoogeography and Animal Ecology. Dr. Adams
(d) Vertebrate Embryology. Mr. Allen

(e) Structure and Development of the Nervous System.

(f) Experimental Zoology. Associate Professor Zeleny

# PART IV AUXILIARY SCIENTIFIC BUREAUS

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## PART IV. AUXILIARY SCIENTIFIC BUREAUS

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# THE AGRICULTURAL EXPERIMENT STATION

#### STAFF

EUGENE DAVENPORT, M.Agr., I.L.D., Director
CYRIL GEORGE HOPKINS, Ph.D., Vice-Director
THOMAS JONATHAN BURRILL, Ph.D., LL.D., Botanist
STEPHEN ALFRED FORBES, Ph.D., Consulting Entomologist
DONALD MCINTOSH, V.S., Consulting Veterinarian
HENRY LEWIS RIETZ, Ph.D., Statistician
CATHERINE MCCALLUM MCINTYRE, Secretary

#### In Agronomy-

CYRIL GEORGE HOPKINS, Ph.D., Chief
LOUIE HENRIE SMITH, Ph.D., Assistant Chief, Plant Breeding
JEREMIAH GEORGE MOSIER, B.S., Assistant Chief, Soil Physics
JAMES HARVEY PETTIT, Ph.D., Assistant Chief, Soil Fertility
ALBERT NASH HUME, M.S., Assistant Chief, Crop Production
JEROME EDWARD READHIMER, B.S., Superintendent, Soil Experiment Fields

ORLO DORR CENTER, M.S., Associate, Crop Production WILLIAM GEORGE ECKHARDT, B.S., Assistant, Soil Fertility Axel Ferdinand Gustafson, B.S., Assistant, Soil Physics Ernest Van Alstine, B.S., Assistant, Chemistry Joseph Paul Aumer, B.S., Assistant, Chemistry Arthur Lumbrick, B.S., Assistant, Crop Production Ora Stanley Fisher, B.S., Assistant, Soil Fertility Clarence Chester Logan, B.S., Assistant, Soil Physics Jay Boardman Park, B.S., Assistant, Chemistry Sinney Viel Holt, B.S., Assistant, Soil Survey Harold Wilson Stewart, B.S., Assistant, Soil Survey Gertrude Niederman, B.S., Assistant, Chemistry Rhea Gordon Smith, B.S., Assistant, Chemistry John Ezra Whitchurch, B.S., Assistant, Soil Fertility

FRANK CRAVENS GRANNIS, B.S., Assistant, Soil Fertility
WARD HANSON SACHS, B.S., Assistant, Soils
FRANCES DORCAS ABBOTT, B.S., Assistant, Chemistry
ELMER MASSEY MCDONALD, B.S., Assistant, Crop Production
EZEKIEL EDWARD HOSKINS, B.S., Assistant, Soil Fertility
WILBUR ROY LEIGHTY, B.S., Assistant, Chemistry

#### In Animal Husbandry-

HEREERT WINDSOR MUMFORD, B.S., Chief
HARRY SANDS GRINDLEY, D.Sc., Chief, Animal Chemistry
WILLIAM DIETRICH, M.S., Assistant Chief, Swine Husbandry
WARD J. MACNEAL, Ph.D., M.D., Assistant Chief, Bacteriology
LOUIS DIXON HALL, M.S., Assistant Chief, Animal Husbandry
ARTHUE DONALDSON EMMETT, A.M., Associate, Animal Nutrition
WALTER CASTELLA COFFEY, M.S., First Assistant, Sheep Husbandry
HENRY PERLY RUSK, B.S., Associate, Beef Cattle
JAMES LLOYD EDMONDS, B.S., Assistant, Horse Husbandry
LUCIUS WELBORNE SUMMERS, B.S., Assistant, Animal Husbandry
PAUL ALEXANDER HOFFMAN, M.S., Assistant, Animal Nutrition

#### In Dairy Husbandry-

WILBUR JOHN FRASER, M.S., Chief

Cassius Clay Hayden, M.S., First Assistant, Dairy Husbandry
Jesse Melangthon Barnhart, B.S., Assistant Chemist, Dairy
Husbandry

Nelson William Hepburn, M.S., First Assistant, Dairy Manufactures

ROYDON EARL BRAND, B.S., Assistant, Dairy Husbandry Walter Lee Gaines, M.S., Assistant, Dairy Husbandry Leroy Lang, B.S., Assistant, Dairy Husbandry

#### In Horticulture-

JOSEPH CULLEN BLAIR, M.S.A., Chief
CHARLES SPENCER CRANDALL, M.S., Chief, Plant Breeding
JOHN WILLIAM LLOYD, M.S.A., Assistant Chief, Olericulture
OSCAR S. WATKINS, B.S., Assistant Chemist, Horticulture
HERMAN BERNARD DORNER, B.S., Assistant, Floriculture
ARNO H. NEHRLING, Assistant, Floriculture
ERNEST WINFIELD BAILEY, M.S., Assistant, Plant Breeding
WARREN ALBERT RUTH, M.S., Assistant, Horticultural Chemistry
CHARLES ELMER DURST, B.S., Assistant, Plant Breeding
THOMAS BREGGER, B.S., Assistant, Plant Breeding

#### In Botany-

THOMAS JONATHAN BURRILL, Ph.D., LL.D., Chief

By an act approved March 2, 1887, the national government appropriated \$15,000 per annum to each state for the purpose of establishing and maintaining, in connection with the colleges founded upon the congressional act of 1862, agricultural experiment stations, "to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." Under this provision the Agricultural Experiment Station for Illinois was founded in 1888 and placed under the direction of the Trustees of the University, and a part of the University farm, with buildings, was assigned for its use.

The Federal grants to the Station have been supplemented by State appropriations, until its revenues have become the largest of those of similar institutions throughout the world.

Investigations are conducted in the growing and marketing of orchard fruits, the methods of production of meats and of dairy goods, the principles of animal breeding and of nutrition, and the improvement and the economic production of crops. All the principal types of soil of the State are being studied in the laboratory under glass and in the field. A soil survey is in progress which when finished will map and describe the soil of every farm of the State down to an area of ten acres. Twenty to thirty fields and orchards are rented in various portions of the State for the study of local problems, and assistants are constantly on the road for the conduct of experiments or to give instruction to producer or consumer. The results of investigation are published in bulletins, which are issued in editions of 50,000, and distributed free of charge.

Much of this work is of interest to students, especially of graduate grade, and it is freely available for this purpose, so far as is consistent with the interests of the Station.

# THE ENGINEERING EXPERIMENT STATION

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

#### STAFF

- WILLIAM FREEMAN MYRICK GOSS, M.S., D.Eng., Director
- ELIZABETH ANDREWS SWIFT, A.B., Assistant Editor
  THE HEADS OF THE DEPARTMENTS IN THE COLLEGE OF ENGINEERING <sup>1</sup>

#### SPECIAL INVESTIGATORS

- Herbert Fisher Moore, M.M.E., Assistant Professor in the department of Theoretical and Applied Mechanics
- DUFF ANDREW ABRAMS, C.E., Associate in the department of Theoretical and Applied Mechanics
- Franklin Wales Marquis, M.E., Associate in the department of Railway Engineering
- ~ Frank Lyman Busey, M.E., First Assistant in the department of Mechanical Engineering
- DAVID FORD McFarland, A.M., M.S., Ph.D., First Assistant in the department of Chemistry
- WILLIS APPLEFORD SLATER, M.S., First Assistant in the department of Theoretical and Applied Mechanics
- TRYGVE D YENSEN, B.S., Assistant in the department of Electrical Engineering
- John Nicholas Vedder, A.M., Assistant in the department of Mechanical Engineering

#### RESEARCH FELLOWS

HAROLD HOUGHTON DUNN, B.S., Railway Engineering
JEAN PAUL CLAYTON, B.E., Mechanical Engineering
ARTHUR RUSSELL LORD, B.S., Theoretical and Applied Mechanics

 $<sup>^{1}\,\</sup>mathrm{For}$  the names of these heads of departments, see the Faculty of the College of Engineering, pp. 165-168

CLAUDIUS EDMUND BENNETT, B.Sc., Electrical Engineering
FLOYD HAYS MILLARD, B.S., Theoretical and Applied Mechanics
HUBERT LEONARD OLIN, A.B., Chemistry
SIDNEY ARCHIE ROWLAND, JR., A.B., Physics
ELLIS WILLARD TEMPLIN, B.S., Railway Engineering
ONNIE B. WOOTEN, B.S., Electrical Engineering

The Engineering Experiment Station was established by action of the Board of Trustees, December 8, 1903. Its purposes are the stimulation and elevation of engineering education, and the study of problems of special importance to professional engineers and to the manufacturing, railway, mining, and industrial interests of the State and the country. The practical nature of the investigations and their adaptation to present-day needs are assured by means of conferences with committees of the leaders of the State's industrial activities.

The control of the Station is vested in the heads of the several departments of the College of Engineering. These constitute the Station Staff, and, with the Director, determine the character and extent of the investigations to be undertaken.

Up to the present time, forty-five bulletins of value to engineering science have been published. The experiments have related chiefly to tests of concrete, reinforced-concrete beams and columns, tests of high-speed tool steels, the resistance of tubes to collapse, fuel tests, the holding power of railroad spikes, effect of scale on heat transmission, roof trusses, stresses in chain links, tests of electric lamps, tests of a liquid air plant, determination of voids, settlement and weight of crushed stone, the lighting of country homes by private electric plants, high steam pressure in locomotive service, rate of formation of carbon monoxide in gas producers, base and bearing plates for columns and beams, weathering of coal, thermal conductivity of fire-clay, heat transmission, tests of timber beams, effect of keyways on the strength of shafts, freight train resistance, tests of a suction gas producer, tests of steel columns, etc.

# THE STATE LABORATORY OF NATURAL HISTORY

#### STAFF

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

STEPHEN ALFRED FORBES, Ph.D., LL.D., Director
CHARLES ARTHUR HART, Systematic Entomologist
MARY JANE SNYDER, Secretary
GRACE OSGOOD KELLEY, B.L.S., Librarian
ROBERT EARL RICHARDSON, A.M., Assistant in charge of Biological

ROBERT EARL RICHARDSON, A.M., Assistant in charge of Biological Station

In 1885 the legislature passed a bill transferring the State Laboratory of Natural History from the Illinois State Normal University to the University of Illinois. This laboratory was created for the purpose of making a natural history survey of the State, the results of which should be published in a series of bulletins and reports; and for the allied purpose of furnishing specimens illustrative of the flora and fauna of the State to the public schools and to the State museum. For these purposes direct appropriations are made by the legislature from session to session. A large amount of material has been collected, and extended publications have been made in both the forms above mentioned.

### THE STATE ENTOMOLOGIST'S OFFICE

#### STAFF

STEPHEN ALFRED FORBES, Ph.D., LL.D., State Entomologist CHARLES ARTHUR HART, Systematic Entomologist JOHN JUNE DAVIS, B.S., Assistant for Northern Illinois WESLEY PILLSBURY FLINT, Assistant for Central Illinois LINDLEY MALCOLM SMITH, B.S., Assistant for Southern Illinois ALECANDRE ARSÉNE GIRAULT, B.S., General Assistant FRED TALMAGE WILEY, A.B., Chief Horticultural Inspector Horace Frederic Hudson, B.S.A., Field Assistant WILLIAM CHALDEE MATTHEWS, Artist

The work of the State Entomologist's Office has been done at the University of Illinois since January, 1885; by legislative enactment in 1899 it was permanently established at the University, the Trustees of which are required by that act to provide for the Entomologist and his assistants such office and laboratory rooms as may be necessary to the performance of their duties.

It is the duty of this officer to investigate all insects dangerous to any valuable property or dangerous to the public health, and to conduct experiments for the control of injuries to person or property by insects, publishing the results of his researches biennially in his official report. He is required also to inspect and certify annually all Illinois nurseries, and to maintain a general supervision of the horticultural property of the State as respects its infestation by dangerous insects and its infection with contagious plant disease.

Twenty-five reports have now been published by the Entomologist, twelve of them since the transfer of his office to the University.

## THE STATE WATER SURVEY

EDMUND JANES JAMES, Ph.D., LL,D., PRESIDENT

#### STAFF

EDWARD BARTOW, Ph.D., Director.
THOMAS JONATHAN BURRILL, Ph.D., LL.D., Consulting Bacteriologist
SAMUEL WILSON PARR, M.S., Consulting Chemist
ARTHUR NEWELL TALBOT, C.E., Consulting Engineer
WILFRED FRANCIS LANGELIER, B.S., Chemist
WALTER BERNREUTER, A.B., Bacteriologist

The chemical survey of the waters of the State was begun in the latter part of September, 1895. In June, 1897, the General Assembly authorized the continuation of the work and directed the Trustees of the University to establish a chemical and biological survey of the waters of the State. The purpose of the survey is to collect facts and data concerning the water supplies of the State; to make such chemical and biological examinations and analyses as shall serve to demonstrate their sanitary condition; to determine standards of purity of drinking waters for the various sections of the State; and to publish the results of these investigations.

The Survey is a division of the department of chemistry of the University of Illinois, and special laboratories are equipped in the Chemistry Building for conducting the work.

### THE STATE GEOLOGICAL SURVEY

#### COMMISSION

GOVERNOR CHARLES S. DENEEN, Chairman PROFESSOR T. C. CHAMBERLIN, Vice-Chairman PRESIDENT EDMUND JANES JAMES, Secretary

#### STAFF

FRANK WALBRIDGE DEWOLF, Acting Director, Urbana

EDWARD BARTOW, Consulting Chemist in Water Analysis, University of Illinois, Urbana

ULYSSES S. GRANT, Consulting Geologist in Lead and Zinc Studies, Northwestern University, Evanston

Samuel Wilson Parr, Consulting Chemist in Coal Investigations, University of Illinois, Urbana

CHARLES WESLEY ROLFE, Consulting Geologist in Clay Investigations, University of Illinois, Urbana

ALBERT VICTOR BLEININGER, Consulting Ceramist, University of

Illinois, Urbana
ROLLIN D. SALISBURY, Consulting Geologist in Preparation of Educational Series. University of Chicago. Chicago

J. A. Udden, Geologist in charge of Deep Well Records, Augustana College, Rock Island

THOMAS EDMUND SAVAGE, Geologist, University of Illinois, Urbana STUART WELLER, Geologist, University of Chicago, Chicago

GILBERT H. CADY, Assistant Geologist, Urbana

RAYMOND SILLIMAN BLATCHLEY, Assistant Geologist, Urbana

E. Wesley Shaw, Assistant Geologist in Cooperative Surveys, Urbana, Ill., and Washington, D. C.

ROBERT Y. WILLIAMS, Engineer in charge of Mine Rescue Station; United States Bureau of Mines, Urbana

JAMES M. WEBB, Foreman, Mine Rescue Station, Urbana

WILLIAM HENRY HERRON, Geographer U. S. and State Geological Surveys, Urbana, Ill., and Washington, D. C. GEORGE EDWARD CAROTHERS, Chief Clerk, Urbana

The Forty-fourth General Assembly passed an act, in force July 1, 1905, providing for the establishment at the University of Illinois of a Bureau to be known as the State Geological Survey. Bureau is under the control of a Commission, of which the President of the University is an ex officio member. The purpose of the Survey is primarily the study and exploration of the mineral resources of Illinois. Field parties are organized for the investigation of oil. clay, coal, stone, artesian water, cement materials, and road materials. and for general scientific investigations. The Bureau is charged also with the duty of making a complete topographical and geological survey of the State. The topographical surveys are now being carried on in connection with the United States Geological Survey. These will lead to the publication of a series of bulletins and of maps, eventually covering the entire State. The Forty-fifth General Assembly further charged the Commission with the duty of making surveys and studies of lands subject to overflow, with a view to their reclamation. Work is now being carried on in co-operation with the Internal Improvement Commission, the United States Geological Survey, and the United States Department of Agriculture, along the Sangamon, Kaskaskia, Big Muddy, Wabash, and Embarrass rivers. The laboratory work is done in connection with various departmental laboratories of the University. The equipment includes a working library, maps, and a rapidly growing collection, illustrating the geological and the economical resources of the State. Sixteen bulletins and a large number of maps have been published. Many temporary assistants besides the regular corps are employed each summer.

Under an agreement between the State Geological Survey and the College of Engineering on the one hand, and the United States Geological Survey on the other, a branch station has been located at Urbana for the demonstration of modern methods in mine rescue work, and for the study of mining methods and mine wastes in Illinois. The station, which is in charge of Mr. R. Y. Williams, is equipped with oxygen helmets, electric safety lamps, and other devices by means of which it is possible to enter mines which may be filled with dangerous gases. The station is maintained, not as a permanent feature, but in an effort to demonstrate to the operators, miners, and mine inspectors the value of the apparatus and to encourage its general installation in the State.

# THE BOARD OF EXAMINERS IN ACCOUNTANCY

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

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#### UNIVERSITY COMMITTEE

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By a law passed in 1903 the State University is made an examining body of applicants for certificates as certified public accountants. To carry out the provisions of the law the Board of Trustees have appointed a board of three examiners to prepare, conduct, and grade examinations, and a University committee to conduct the routine work. Under the law one examination must be held each year in May, but examinations have been held also in November or December of each year in which there were a sufficient number of applicants. All the examinations thus far given have been held in the city of Chicago.

Applicants for the certificate of certified public accountants are required to pass examinations in theory of accounts, commercial law, auditing, and practical accounting.

## THE MINE RESCUE STATION

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

#### STAFF

College of Engineering-

WILLIAM FREEMAN MYRICK GOSS, M.S., D.Eng., Dean

HARRY HARKNESS STOEK, B.S., E.M., Professor of Mining Engineering

State Geological Survey-

Frank Walbridge DeWolf, B.S., Acting Director, Illinois Geological Survey

United States Bureau of Mines-

JOSEPH A. HOLMES, Ph.D., Director, United States Bureau of Mines, Washington, D. C.

ROBERT M. WILSON, C.E., Chief Engineer, U. S. Bureau of Mines, Washington, D. C.

George S. Rice, E.M., Chief Mining Engineer, U. S. Bureau of Mines, Pittsburg, Pennsylvania

JAMES W. PAUL, B.S., Mining Engineer in charge of Rescue Work, U. S. Bureau of Mines, Pittsburg, Pennsylvania

ROBERT Y. WILLIAMS, A.B., E.M., Mining Engineer, U. S. Bureau of Mines, Urbana, Illinois

James M. Webb, Foreman, Urbana Mine Rescue Station

A Mine Explosion and Mine Rescue Station has been established in Urbana by the United States Geological Survey, in co-operation with the State Geological Survey and the College of Engineering of the University of Illinois.

The purpose of this station is to demonstrate to mine operators, mine inspectors, and others the value of oxygen helmets and resuscitation apparatus in connection with rescue work in mines, as an aid in fighting mine fires, and in the opening of mines which have been sealed on account of fires. The station not only gives demonstration, but undertakes to train men in the use of such apparatus, the service being rendered gratuitously, and, as far as possible, to all interested within the limits of Illinois, Indiana, Michigan, western Kentucky, Iowa, and Missouri.

The engineers connected with the station also aim to study mining conditions in the territory it serves, to the end that practice in mining in the various parts of the United States may be co-ordinated and brought to a higher state of efficiency.

Mr. Williams and Mr. Webb, from the Urbana station, have already rendered valuable assistance in entering and examining mines in Illinois and Indiana which have been sealed on account of fire. In the case of the Cherry disaster they reached the scene of the accident by special train and were the first to enter the mine.



# PART V LISTS OF STUDENTS, ETC.

(1909-1910)

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### LISTS OF STUDENTS

#### 1909-1910

#### GRADUATE SCHOOL

\*Abbott, Theodore Sperry, Min.E., 1897, Saltillo, Mexico, Civil Engineering

Ackert, James Edward, A.B., 1909, Dixon, Zoology

Adams, Willium Sylvester, A.B., 1907, (Greenville College), Greenville, Scholar in History

Allison, Fred Gray, B.S., 1906, Urbana, Animal Husbandry

Allison, Harry Orson, B.S., 1906, Champaign, Animal Husbandry Anderson, Benjamin McAllister, A.B., 1906, (Univ. of Mo.), Columbia, Mo., Fellow in Economics

Applegate, Anne Mary, A.M., 1909, Atlanta, Fellow in French Austin, Vida Almeda, B.S., 1908, (Northwestern Univ.), Woodstock, Education

Ayres, Zelda Maude, A.B., 1909, Leaf River, Scholar in English Bailey, Margaret Lewis, A.B., 1903, (Cornell Univ.), Wellsboro, Pa., Scholar in German

\*Bailey, Walter Thomas, B.S., 1904, Tuskegee, Ala., Architecture Baker, Clarence James, A.B., 1907, (Univ. of Denver), University Park, Colo., Chemistry

Baldwin, Jessie, A.B., 1908, Ottawa, Botany

Ballans, Anna Mabel, A.B., 1909, (Knox College), Neponset, Scholar in Latin

Ballew, Margaret Esther, A.B., 1909, (Hedding College), Knoxville, Scholar in English

Bardwell, Robert Cousins, A.B., 1909, Aurora, Chemistry

Barnhart, Charles Anthony, A.B., 1905, *Urbana*, Mathematics Barnhart, Jesse Melangthon, B.S., 1906, *Urbana*, Chemistry

\*Barter, Hendryx Harold, B.S., 1904, Reno, Nevada, Mechanical Engineering

<sup>\*</sup> In absentia.

Barto, Philip Stephen, A.B., 1906, Champaign, German

Belts, Claude, A.B., 1907, Lewiston, English

Bennett, Elizabeth Ruth, A.M., 1908, E. Stroudsburg, Pa., Fellow in Mathematics

\*Bland, Rose, A.B., 1909, Fayetteville, Arkansas, Education

Blinn, John Ferguson, B.S., 1906, Urbana, Chemistry

Boomer, Simeon E, A.B., 1909, Champaign, Physics

Boomsliter, George Paul, B.S., 1906, Grand Haven, Mich., Civil Engineering

\*Bopp, Julius Valentine, B.S., 1908, Brooklin, S. D., Agronomy

Bost, Ernest Lesley, A.M., 1909, Urbana, History

\*Boyd, Edward Parkman, B.S., 1901, Washington, D. C., Architecture

Brand, Royden Earl, B.S., 1909, Danville, Dairy Husbandry

Bredehoft, Nellie Matilda, A.B., 1908, Danville, English

Brewer, John H, A.B., 1899, Milford, Education

Bricker, Garland Armor, B.Pd., 1907, Lima, Education

Briscoe, Charles Francis, A.B., 1889, (Indiana Univ.), Urbana, Botany

Britton, William Everett, A.B., 1909, (McKendree College), Mt. Olive, Scholar in Political Science

Brooks, Ira Sanford, B.S., 1908, Champaign, Horticulture

Brown, Elmer Jay, A.M., 1909, Urbana; Fellow in Economics

Brown, James Howard, M.S., 1909, Jacksonville, Fellow in Botany

\*Burdick, Charles Baker, B.S., 1895, Chieago, Civil Engineering

Burghart, Lloyd Meeks, A.B., 1906, (Lake Forcst Coll.), Covington, Indiana, Chemistry

Burke, Charles Eldrid, A.B., 1907, (Brantford College), Brantford, Ont., Fellow in Chemistry

\*Burns, Josephine Elizabeth, A.B., 1909, Macomb, Mathematics

\*Cabeen, Richard McPherren, B.S., 1909, Seaton, Architecture

Campbell, William Hemphill, A.B., 1894, (Monmouth Coll.), Marissa, Education

\*Carmichael, Berton Eugene, B.S., 1905, Wooster, Ohio, Animal Husbandry

\*Carr, Maurice LeRoy, B.S., 1905, Chicago, Electrical Engineering Carroll, Ernest, B.S., 1909, (Utah), Orderville, Utah, Animal Husbandry

Carscallen, George Ernest, A.B., 1906, (Wabash College), Frankfort, Indiana, Mathematics

Center, Orlo Dorr, B.S., 1905, Champaign, Agronomy

<sup>\*</sup> In absentia.

- Chambers, Charles Oscar, A.M., 1895, (Indiana Univ.), Urbana, Botany
- Charles, Fred Lemar, M.S., 1895, (Northwestern Univ.), Urbana, Zoology.
- Chase, Margaret Isabel, A.B., 1909, (Knox College), Towanda, Kansas, Scholar in Mathematics
- Christopher, Carl, B.S., 1909, Auburn, Animal Husbandry
- + Clark, Charles Richard, B.S., 1898, Champaign, Architecture
  - Clark, Darwin Orlando, A.M., 1909, Carthage, Mo., Fellow in History
  - Clayton, Jean Paul, B.E., 1909, (Tulane Univ.), New Orleans, La., Research Fellow in Engineering Experiment Station
  - Collins, Vida Lucile, A.B., 1907, (Univ. of Michigan), Bear Lake, Mich., English
  - Converse, Edward Chapman, A.M., 1909, Champaign, Physics
- Cooley, William Ralph, B.S., 1908, (Univ. of S. D.), Tabor, S. D.,
  Animal Husbandry
- +Cort, William Walter, A.B., 1909, (Univ. of Colo.), Colorado Springs, Colo., Zoology
  - Coss, James Austin, B.S., 1903, (Illinois Wesleyan), Arrowsmith, Chemistry
- + Creek, Herbert LeSourd, A.M., 1905, (Butler Coll.), Indianapolis, Ind., Fellow in English
  - \*Cromwell, John Cabel, B.S., 1886, Cleveland, Ohio, Mechanical Engineering
  - Cummins, Robert Alexander, B.S., 1909, (Illinois Wesleyan), Towanda, Scholar in Education
  - Dallenbach, Karl M, A.B, 1910, Champaign, Psychology
  - Denio, Herbert William, A.M., 1891, (Middlebury Coll.), B.L.S., 1894, Middlebury, Vt., History
- Denton, William Wells, A.B., 1907, (Univ. of Michigan), Detroit, Mich., Mathematics
- Derick, Clarence George, B.S., 1906, (Worcester Poly. Inst.), Champaign, Chemistry
  - DeVries, Louis, A.M., 1908, (Northwestern Univ.), St. Louis, Mo., German
  - Dietrich, William, M.S., 1906, Champaign, Animal Husbandry
  - Dillow, Ray Maxwell, A.B., 1909, (Lombard College), Custer, Ia., Scholar in Economics
  - Downey, Elzy Franklin, A.B., 1909, Clyde, Chemistry
  - \*DuBois, Alexander Dawes, B.S., 1899, Ithaca, N. Y., Electrical Engineering

<sup>•</sup> In absentia.

\*Dull, Raymond William, B.S., 1897, Aurora, Mechanical Engineering Duncan, Margaret Steele, A.B., 1908, (Bryn Mawr Coll.), Urbana, French

Dunn, Harold Houghton, B.S., 1908, Moline, Research Fellow in Engineering Experiment Station

Durst, Charles Elmer, B.S., 1909, Quincy, Horticulture

Earnest, William Watson, A.B., 1908, Champaign, Psychology

Eastman, Jasper Fay, B.S., 1907, (Mass. Agr. Coll.), Townsend, Mass., Scholar in Agronomy

Eckhardt, William George, B.S., 1905, Urbana, Chemistry

Egan, James Everett, A.B., 1908, (DePauw Univ.), Frankfort, Ind., Chemistry

Eiszner, Bessie Josephine, A.B., 1909, Chicago, History

Emmett, Arthur Donaldson, A.M., 1905, Urbana, Chemistry

Emmons, Clyde Wilbur, A.M., 1909, Champaign, Mathematics

Engstrom, Roy Victor, B.S., 1904, Urbana, Civil Engineering

Ernest, Thomas Reuben, A.M., 1908, Swanwick, Fellow in Chemistry

Ewing, Henry Ellsworth, A.M., 1908, Arcola, Entomology Farmer, Flora Edith, A.B., 1909, (Ewing College), Syracuse, N. Y.,

Scholar in Latin
\*Farwell, Stanley Prince, B.S., 1907, Oklahoma City, Okla., Electrical Engineering

Fawcett, Mrs. Mary Eliza, A.M., 1909, Columbus, Ohio, English

Fischer, Charles Albert, A.B., 1905, (Wheaton College), Wheaton, Scholar in Mathematics

Fishback, William Murphy, A.B., 1909, Marshall, History

Fisher, Sara Carolyn, A.B., (Lombard College), Galesburg, Scholar in Psychology

Fisher, Stephen Elias, A.B., 1900, (Eureka College), Champaign, Sociology

\*Fiske, Clarence Wilson, B.S., 1903, Moline, Mechanical Engineering Forrey, Claire Vesta, A.B., 1909, (Miami Univ.), Wawaka, Ind., Scholar in Mathematics

Forsyth, Chester Hume, A.B., 1906, (Butler College), Trafalgar, Ind., Mathematics

\*Fowler, Chester Charles, B.S., 1909, Ames, Iowa, Chemistry

Gaddis, Porter Lemuel, A.B., 1908, (Greenville Coll.), Urbana, Mathematics

Gaines, Walter Lee, B.S., 1908, Crete, Dairy Husbandry

Gamertsfelder, Carl Christian, A.B., 1909, (Northwestern Univ.), Naperville, Greek.

<sup>\*</sup>In absentia.

Gardner, Clarence Oran, A.B., 1909, Curtis, Nebr., Political Science Gates, Allen Bennett, B.S., 1909, (Purdue Univ.), Urbana, Research Fellow in Engineering Experiment Station

Gates, Frank Caleb, A.B., 1910, Chicago, Botany

Gay, Mary Louise, A.B., 1906, Rockport, Scholar in German

Gernert, Walter Byron, M.S., 1909, McPherson, Kansas, Fellow in Agronomy

Gilbert, John Philo, A.B., 1905, Urbana, Entomology

Gill, Frederic William, B.S., 1906, Urbana, Chemistry

+ Glasgow, Hugh, A.B., 1908, Tennessee, Fellow in Zoology

Glasgow, Robert Douglas, A.B., 1908, Tennessee, Zoology

Gonnerman, Harrison Fred, B.S., 1908, Dixon, Theoretical and Applied Mechanics

Gordon, Hugh Byron, A.B., 1908, (Miami Univ.), Georgetown, Ohio, Fellow in Chemistry

Green, Bessie Rose, A.B., 1907, Ivesdale, Zoology

Guell, Antonio, M.E., 1907, (La. State Coll.), Research Fellow in Engg. Exp. Sta. Electrical Engineering

Gustafson, Axel Ferdinand, B.S., 1907, Aledo, Agronomy

\*Gutmann, Ludwig, B.S., 1904, St. Louis, Mo., Electrical Engineering Gwinn, Alta, A.B., 1907, Urbana, English

+ Haig, Robert Murray, A.M., 1909, Columbus, Ohio, Economics Hake, Harry Gray, B.S., 1907, Barry, Electrical Engineering

Hall, Edward Leverich, A.B., 1908, Urbana, Sociology

Hall, Louis Dixon, B.S., 1899, Champaign, Economics

\*Hanzlik, Paul John, A.B., 1908, Cedar Rapids, Ia., Pharmacy

Harbarger, Sada Annis, A.M., 1909, Columbus, English

Harvey, Homer Alvan, A.B., 1909, (Univ. of Missouri), Elk City, Kan., French

Hays, Carl J., B. S., 1901, Champaign, Civil Engineering

Hedgcock, William Everett, B.S., 1909, Plymouth, Agronomy

Henion, Lora Atkins, A.B., 1907, Urbana, English

Henes, Harry William, M.E., 1909, (Columbia Univ.), Chicago, Civil Engineering

Hepburn, Nelson William, B.S., 1907, Geneva, Dairy Husbandry Hess, George Wellman, A.B., 1906, Drayton Plains, Mich., Mathematics

Hoagland, Henry Elmer, A.B., 1910, Prairie City, Economics Hoffman, Paul Alexander, B.S., 1909, Chicago, Scholar in Animal Husbandry

<sup>\*</sup> In absentia.

Homberger, Alfred Wilhelm, A.M., 1908, Sauk City, Wis., Fellow in Chemistry

\*Hoppin, Charles, B.S., 1901, Peoria, Mechanical Engineering

Hornbeak, John Wesley, B.S., 1906, (Illinois Wesleyan), Perry, Physics

Houchens, Josie Bachellor, B.L.S., 1905, Champaign, Sociology

Howe, Paul Edward, A.M., 1907, Champaign, Chemistry

\*Howell, Leslie Dillon, B.S., 1907, Tacoma, Washington, Architecture \*Hu, Wenfu Yiko, I.L.B., 1909, Shanghai, China, Political Science Hubbart, Oliver Sherman, B.S., 1905, (Northwestern Univ.), Monticello, History

Huston, Ola Estelle, A.B., 1909, (Carthage College), Carthage, Scholar in Greek

Hutton, Joseph Gladden, B.S., 1908, (Univ. of Chicago), Urbana, Botany

Hyslop, William Henry, A.B., (Knox College), Galesburg, Physics Ingberg, Simon, C.E., 1909, (Univ. of Minn.), Hindrus, Minn., Fellow in Theoretical and Applied Mechanics

Irwin, John Webb, A.B., 1909, (Wabash College), Caledonia, Ohio, Scholar in English

Jacobsen, Andrew, B.S., 1906, (St. Olaf Coll.), Webster, Minn., Chemistry

Jaeck, Emma Gertrude, A.M., 1908, Omro, Wis., Fellow in German James, Herman Gerlach, J.D., 1909, (Univ. of Chicago), Urbana, Political Science

James, Leonard Vaughan, B.S., 1906, Amboy, Electrical Engineering Jones, Truman Nathaniel, A.B., 1909, Aurora, Scholar in History \*Jones, Warren, A.B., 1902, DeKalb, Education

Joseph, Walter Edward, B.S., 1907, (Purdue Univ.), Mayden, Ind., Scholar in Animal Husbandry

Kemp, Jacob Garrett, A.B., 1906, Champaign, Physics

Kerner, Robert Joseph, A.M., 1909, Chicago, History

Kerr, Josephine Ellrod, M.S., 1909, Urbana, Botany

Kingsbury, Howard Baker, A.B., 1906, Champaign, Mathematics

Kinney, Jacob Millison, A.M., 1907, (Univ. of Ncbraska), Spencer, Ind., Fellow in Mathematics

Kirk, James Thornton, A.B., 1900, (Eureka College), Toulon, Education

Knight, Luther, M.S., 1904, Glencoe, Chemistry

Kostalek, John Anton, A.M., 1908, Wisconsin, Fellow in Chemistry

<sup>\*</sup>In absentia.

- Kressmann, Fred William, B.S., 1909, Chicago, Chemistry
- Krieger, Herbert William, A.M., 1908, (Iowa), Burlington, Iowa, Fellow in Sociology
- Lang, LeRoy, B.S., 1909, Monticello, Iowa, Dairy Husbandry
- Langelier, Wilfred Francis, B.S., 1909 (N. H. State Col.), Nashua, N. H., Chemistry
- \* LaRue, George Roger, A.M., 1909, (Univ. of Nebraska), Lincoln, Neb., Zoology
  - Latimer, Thomas Ervin, A.M., 1909, Seattle, Wash., Economics
  - Latzer, Lenore Lydia, A.M., 1907, (Univ. of Michigan), Highland, Bacteriology
  - Lawson, Edward Lotan, Ph.B., 1902, (Union Christian Coll.), Moweaqua, Education
  - Lehenbauer, Benjamin George, A.B., 1909, (J. M. U.), Hannibal, Mo., Scholar in Mathematics
- Lehenbauer, Philip Augustus, B.S., 1908, (J. M. U.), Hannibal, Mo., Botany
  - Leonard, Edith, B.S., 1906, Champaign, Architecture
  - Lord, Arthur Russell, B.S., 1907, (Univ. of Maine), Ipswich, Research Fellow in Engineering Experiment Station
  - Lund, James Charles, B.S., 1909, Maple Plain, Minn., Mechanical Engineering
  - McConn, Charles Maxwell, A.M., 1904, (Univ. of Minnesota), Urbana, Education
  - \*McConney, Robert Bonner, B.S., 1889, Denver, Colo., Mechanical Engineering
  - McDonald, Lewis, A.B., 1908, Brownstown, Civil Engineering
  - McGinnis, Mary Ola, A.B., 1902, Springfield, Scholar in Botany
  - McKnight, William Asbury, B.S., 1904, Champaign, Sociology
  - McLaughlin, Maude Katherine, A.B., 1909, (Knox College), Galesburg, Latin
  - McMillen, Sarah Grace, A.B., 1909, Urbana, Psychology
- MacInnes, Duncan Arthur, B.S., 1907, (Utah), Amer. Falls, Iowa, Fellow in Chemistry
  - Madson, Benjamin Adolph, M.S., 1909, Ames, Iowa, Agronomy
    - Main, Josiah, B.S., 1907, Pittsfield, Education
  - Marden, John Wesley, B.S., 1909, (Ill. Wesleyan Univ.), Bloomington, Chemistry
  - Martin, Arselia Bessie, B.S., 1909, Atlantic, Iowa, Scholar in Architecture

<sup>\*</sup>In absentia.

Martin, Oscar Ross, A.B., 1907, (Central Wesleyan), Bunker Hill, Economics

Mattill, Henry Albright, A.M., 1907, (Western Reserve Univ.), Leavenworth, Kan., Fellow in Chemistry

Mayne, Louis Brawley, A.B., 1910, Camden, English

\*Meier, William, B.S., 1901, Chicago, Civil Engineering

Melvin, Frank Edgar, A.M., 1909, (Univ. of Kansas), Iola, Kan., History

\*Metzger, Louis Charles Fred, B.S., 1905, St. Louis, Mo., Civil Engineering

Miller, Charles Ernest, B.S., 1909, Mattoon, Chemistry

Millspaugh, Arthur Chester, A.B., 1908, (Albion College), Augusta, Mich., Scholar in History

\*Mitchell, Annie, A.B., 1901, Bement, English

Mitchell, Harold Hanson, A.B., 1909, Urbana, Chemistry

Moncrieff, Jesse Edwin, A.B., 1909, (Shurtleff College), Otsego, Mich., Scholar in Philosophy

Murdock, Walter Thompson, B.S., 1907, (Purdue Univ.), Chicago, Chemistry

Musselman, Thomas Edgar, A.B., 1910, Quincy, Zoology

Myers, Clyde Hadley, B.S., 1907, (Ill. Wesleyan Univ.), Bloomington, Agronomy

Nickell, Lloyd Francis, A.B., 1909, Champaign, Chemistry

Nightingale, Harry Thomas, A.M., 1009, Urbana, Political Science Osborn, Herbert Tirrill, A.B., 1909, (Ohio State Univ.), Columbus, O.,

Scholar in Entomology Owen, Arthur Leslie, A.M., 1909, Burlington, Vt., Spanish

Palmer, George Merit, A.M., 1909, Urbana, English

Park, Jay Boardman, A.B., 1908, Urbana, Chemistry

Parker, Carl William, A.M., 1909, (Indiana Univ.), Glens Falls, N. Y., Economics

Parsons, Irene Mary, A.B., 1908, Chicago, Latin

Patchin, Mary Amoret, A.B., 1906, (Wellesley Coll.), Chardon, O., English

Perring, Vere Dorothy, A.B., 1909, Gifford, Scholar in Psychology

Perry, Edna Maude, A.B., 1909, Urbana, Zoology

Perry, Eleanor Farrand, A.B., 1909, Champaign, English

Perry, Lorinda, A.B., 1909, Melvin, Scholar in Economics

\*Phillips, James David, B.S., 1893, Madison, Wis., Architecture

Phillips, Paul Chrisler, A.B., 1906, (Indiana Univ.), Bloomfield, Ind., Fellow in History

<sup>\*</sup>In absentia.

Phillips, William Jeter, M.S., 1903, (Va. Poly. Inst.), Massey, Va., Entomology

Pincomb, Helena Maude, B.S., 1901, (Kan. State Agrl. Coll.). Lenexa, Kan., Household Science

Porter, Francis Marion, B.S., 1907 (Ohio State Univ.), Urbana, Physics

Post, George Earl, A.B., 1909, Fithian, Economics

Potter, Ralph Sidney, A.B., 1909, Fairbury, Chemistry

Price, Anna May, A.M., 1904, (Univ. of S. Dakota), Lincoln, Nebr., French

Pricer, John Lossen, A.M., 1907, Champaign, Botany

Radeliffe, Barney Simonson, A.B., 1908, (Miami Univ.), Harrison, Ohio, Ceramics

Ravitch, Max, A.B., 1909, (Univ. of Mo.), Brooklyn, N. Y., Fellow in English

\*Ray, George Joseph, B.S., 1898, E. Orange, N. J., Civil Engineering

Reed, Lois Antoinette, A.B., 1909, Urbana, History

Reed, Susan Martha, A.M., 1908, Westfield, Mass., History

Richey, John Jefferson, B.S., 1903, Urbana, Civil Engineering

Robison, Victor Blaine, A.B., 1909, (Blackburn Coll.), Carlinville, Scholar in Economics

Rowland, Sidney Archibald, Jr., A.B., 1907, (Ouachita Coll.), Camden, Ark., Scholar in Physics

\*Rump, Guy Henry, B.S., 1904, Chicago, Civil Engineering

Samuels, Thomas Walter, A.B., 1909, Carrollton, Economics

Sandifur, Claude Williamson, A.M., 1909, Urbana, Physics

\*Sargent, Charles Elliotte, B.S., 1886, Chicago, Mechanical Engineering Savidge, Robert Whitlock, A.B., 1909, (Univ. of Chicago), Omaha, Neb., Chemistry

Schafer, Edwin George, B.S., 1907, (Kan. State Agr. Coll.), Jewell, Kan., Agronomy

Scott, Eleanor Brice, A.B., 1909, (Augustana Coll.), Rock Island, Scholar in German

Scott, George Harvey, A.M., 1902, (Harvard Univ.), Yankton, S. D., Mathematics

Scott, William Doke, M.E., 1908, (Va. Poly. Inst.), Riner, Va., Research Fellow in Engineering Experiment Station

Seely, Fred B, B.S., 1907, (Worcester Poly. Inst.), Chester, N. Y., Mechanical Engineering

\*Shepardson, Ralph Steele, B.S., 1897, Aurora, Architecture

Sim, Keturah Elizabeth, M.L., 1895, Urbana, English

<sup>\*</sup>In absentia.

Sevrens, Oliver Fisk, B.S., 1910, (Univ. of Maine), Woburn, Mass., Zoology

Skidmore, Mark, A.M., 1909, Springfield, Mo., Fellow in French

Slater, Willis Appleford, B.S., 1906, Polo, Research Fellow in Engineering Exp. Sta., Theoretical and Applied Mechanics

Slawson, Harry Herbert, A.B., 1910, Harvard, Political Science

\*Slocum, Roy Harley, B.S., 1900, (Agr. Coll. N. Dak.), Civil Engineering

\*Smith, Percy Almerin, A.B., 1901, *Hiroshima, Japan*, Education Smith, Valentine, A.B., 1905, *Urbana*, Physics

Stempel, Waldemar Mathaeus, A.B., 1905, (Indiana Univ.), Urbana, Physics

Stephenson, Edward Beattie, M.S., 1907, (Knox College), Sparta, Physics

Stevens, Harold Edwin, B.Agr., 1906, (Kentucky State Coll.), Visalia, Ky., Botany

Stevens, Robert Howard, M.S., 1909, (Univ. of Chicago), Deland, Florida, Chemistry

Stewart, Henry Samuel, A.B., 1909, (Greenville Coll.), Fairfield, Ia., Philosophy

Stifler, William Warren, A.M., 1908, Upper Alton, Physics

Stouffer, Ellis Bagley, M.S., 1907, (Univ. of Chicago), State Center, Ia., Fellow in Mathematics

Strachan, Earle Kenneth, B.S., 1908, (Worcester Poly. Inst.), Brockton, Mass., Chemistry

\*Strehlow, Oscar Emil, B.S., 1896, Chicago, Civil Engineering

Swanson, Arthur Emil, A.M., 1909, DeKalb, Fellow in Economics

Taniyama, Sadakichi, B.S., 1909, Okayama, Japan, Civil Engineering

Tanquary, Maurice Cole, A.B., 1907, Urbana, Entomology

Thomas, Frank Waters, A.B., 1905, (Indiana Univ.), Urbana, Latin

Thompson, Charles Manfred, A.B., 1909, Champaign, History

Thompson, Samuel M, A.B., 1909, Harrisburg, English

Tietje, Arthur Jerrold, A.M., 1904, (Cornell Univ.), Urbana, English

Todd, Vincent Hollis, A.B., 1907, (Harvard Univ.), Blooming Valley, Pa., Scholar in German

Trams, Albert Francis, A.B., 1905, Loda, History

Tubbs, Eston Valentine, A.B., 1909, (Northwestern Univ.), Rossville, Scholar in History

<sup>\*</sup>In absentia.

- -Upson, Lent Dayton, A.M., (Univ. of Wisconsin), Rockford, Fellow in Political Science
- Van Alstine, Ernest, B.S., 1907, (Mich. Agrl. Coll.), G'd Ledge, Mich., Agronomy
- VanCleave, Harley Jones, B.S., 1909, (Knox College), Knoxville, Scholar in Zoology
  - Van Meter, Anna Roberta, A.B., 1905, Urbana, Economics
- Wang, Ching Chun, A.M., 1909, Peking, China, Economics
  - West, Carl Joseph, A.B., 1908, (Ohio State Univ.), Martinsville, O., Scholar in Math.
  - Whisler, Percy Frazy, B.S., 1909, (Drake Univ.), Farragut, Ia., Astronomy
  - White, James McLaren, B.S., 1890, Champaign, Architectural Engineering
  - Wickre, Jacob O, B.S., 1909, (Univ. of S. Dak.), Webster S. D., Animal Husbandry
  - Wiley, Carroll Carson, B.S., 1904, Champaign, Civil Engineering
- +Williams, Elmer Howard, A.M., 1906, (Univ. of Wisconsin), Urbana, Fellow in Physics
  - William, Richard Hermon, B.S.A., 1905, (Univ. of Toronto), Corbettan, Tor., Fellow in Animal Husbandry
  - Willson, Frank Gardner, B.S., 1903, (Univ. of Wisconsin), Urbana, Electrical Engineering
  - Woodrow, Harry Ray, B.S., 1909, (Drake Univ.), Des Moines, Ia., Scholar in Physics
  - Wright, Sidney Walter, A.B., 1901, Champaign, History
  - \*\*Zimmerman, Walter Herman, B.S., 1907, Chicago, Mechanical Engineering

<sup>\*</sup>In absentia.

## UNDERGRADUATE COLLEGES AND SCHOOLS IN URBANA

(INCLUDING THE COLLEGES OF LITERATURE AND ARTS, SCIENCE, ENGINEERING, AGRICULTURE, AND LAW, AND THE SCHOOLS OF LIBRARY SCIENCE AND MUSIC)

## ABBREVIATIONS

## CLASSES

1 Freshman 2 Sophomore

Architecture

4 Senior 5 Fifth year, Llbrary Science sp Special student

Household Science, Science

## Courses

HSS

	AD Architectural Decoration AE Architectural Engineering Agr Agriculture Art and Design BLA Business CE Civil Engineering Cer Ceramics ChE Chemical Engineering EE Electrical Engineering HSAgr Household Science, Agriculture HSLA Household Science, Literature and Arts	Lb Library Md Medical ME Mechani MnE Mining MSE Municip Engir Mus Music RE Railway S Science	re and Arts Science Preparatory cal Engineering Engineering al and Sanitary eering Engineering Session
	Aarvig, Truman Obet	CE 1	Pontiac
	Abbott, Alfred Nalle	CE 3	Saltillo, Mex.
	Abbott, Arthur William	Agr 2	Chicago
	Abbott, Bayard Taylor	Agr 4	Morrison
	Abbott, Edward Douglas	EE 3	Streator
	Abbott, Frances Dorcas	S 4	Morrison
	Abbott, Helen	LA~1	Chicago
	Abbott, Ralph Wesley	L 1	Canton
	Abbott, Seth David	Agr 2	Sheridan
	Abbott, Theodora Sarah	LA 3	Saltillo, Mex.
	Abbott, Walter Clarence	Agr 3	Opelika, Ala.
	Abel, George William	EE 1	Chicago
	Abney, M D	LA~2	Harrisburg
	Abraham, Sam Fye	A $sp$	Muncie, Ind.
	Abrams, Samuel	Agr 1	Chicago
/	Acer, Herbert Augustus	BLA 2	Medina, N. Y.
	Ackerburg, Harry Emanuel	LA 1	Chicago
	Adams, William Calvin	ChE 1	Watseka

Ackemann, William Herman	S 1	Elgin
Adkisson, Leah Agnes	LA 2	Hoopeston
Adriance, Rhoda Gilmour	LA 2	Bellefontaine, O.
Aguirre, Matias	CE 3 SS	Coahuila, Mex.
Ainsworth, Walter Wilford	LA 2	Chandlerville
Albin, Russell Hamrick	S 2	Geneva
Albrecht, Arthur Joseph	LA 2	Tiskilwa
Albrecht, William Albert	LA 4	Flanagan
Albright, Roscoe Harrison	CE 2	Minier
Alden, John Leslie	ME 1	Kalamazoo, Mich.
Aldrich, Eleanor Purdy	HSAgr 1	Potsdam, N. Y.
Aleshire, Merlin Clay	CE 3 SS	Chicago
Alexander, John Alva	SS	Keithsburg
Alkire, Hazel Ellen	LA 2	Greenview
Allan, William Selby	CE 3	Chicago
Allen, George B	ME 3	Roodhouse
Allen, Laurie Lee	Md 4	Oberlin, O.
Allen, Louis	LA 1	Clinton
Allen, Paul Charles Burdett	ME 1	Rockford
Allen, Ralph, Jr.	Agr 2	Delavan
Allen, Ray Clifford	LA 3	Waterman
Allen, Roy Orville	Ch 1	Decatur
Alley, Mary	SS Co	lorado Springs, Col.
Allison, Carl Walter	CE 1	Olney
Allison, Harry Orson, B.S., 1906	SS	Alpha
Allyn, Orr	Agr sp	Urbana
Almy, William Herbert	ME 4 SS	Sterling
Alterkruse, Ira Blair	ME 4	Urbana
Alverson, Grace Margaret	Mus 4	Urbana
Alvis, Bennett Young	SS	Kell
Ambrose, Arthur Samuel	Agr sp	Downers Grove
Ambrose, Harry Fulton	EE 1 $SS$	Urbana
Amos, Georgia W	LA 1	Rushville, Ind.
Anderson, Adam Hamilton	Agr sp	Roberts
Anderson, Alphon Lester	L 3	Farmington
Anderson, Arvid Robert	EE 3	Chicago
Anderson, Benjamin David	ME 1	Chicago
Anderson, Charles Thomas	EE 3 SS	Taylor ville
Anderson, Clair Ellmore	EE 3 SS	Summer Hill
Anderson, Clarence Felix	SS	Flora
Anderson, Georgia Victoria	HSAgr $sp$	Cairo

Anderson, Guy Vernon	Agr 2	Chicago
Anderson, Harold Brother	CE 4	Joliet
Anderson, Irving	MSE 2	Galesburg
Anderson, Isabella	SS	Prairie de Rocher
Anderson, Joshua Clayton	SS	Champaign
Anderson, Mrs. Louise Crenshaw	LA 2	Springfield, Mo.
Anderson, Russell Adams McCurdy	AE 4	Urbana
Angarola, Michael Louis	CE 2	Chicago
Andrews, Alfred Allen	Agr sp	Ottawa
Andrews, Harriett Beatrix	LA 1	Mattoon
Andrews, Peach Helen	LA 1	Macon
Andrews, William Orus	CE 1	Oak Park
Angell, Arnold Arthur	AE sp	Chicago
Angerstein, Thomas Chester	L 3 $SS$	Hillsboro
Anthony, William Cornelison	ME 3	Streator
Antoinsen, Arthur	RE sp	Chicago
Apgar, Leo Mahlon	EE 2	Urbana
Appell, Conrad George	88	Mt. Carroll
Applegate, Albert Angelo	LA 1	Atlanta
Applegate, Verne Linn	Md 3	$\Delta t lanta$
Aram, Harold Beaumont	ME 1	Moline
Arbar, Florence	SS	Brimfield
Arbuckle, Grover Samuel	ME 2	Brocton
Arends, Fred George	Agr 4	Melvin
Arms, Jessie Louise	Lb 4	Randolph, Wis.
Armstrong, Charles Elmer	Agr sp	Rockford
Armstrong, Charles Henry	ChE 1	Chicago
Armstrong, George Washington	Agr 1	Ottawa
Armstrong, Hazel Emily	LA 1	Terre Haute, Ind.
Armstrong, Ione	LbLA 2	Great Falls, Mont.
Armstrong, Jessie Fay	LA 1	Champaign
Arnfield, Fremont	L 1	Elgin
Arnold, Charles Nathan	EE 3	Galena
Arnold, Noble	CE 1	Chicago
Arnold, Ralph	A 3	Carbondale
Arnold, William Henry, Jr.	Agr 4	Clyde, N. Y.
Arnold, William Price	L sp	Beech, N. Dak.
Arterburn, Marion Waldo	Agr sp	Mattoon
Asada, Kenkichi	Agr sp Agr 1	Tokio, Japan
Aschermann, Roy Oral	ME 1	Lovington
	ME 1 A 2	
Ashby, Raymond Clarke	4 %	Berwyn

Ashby, Wilbert Bond	A 2	Berwyn
Ashton, Harold Lewis	Agr 1	Chicago
Ashley, Leon Eaton Cummins	AE 4	Bluffs
Atchison, O Hal	Agr 1	Lovington
Atkinson, Albert King	CE 1	Chicago
Atkinson, Frederick Mortimer, Jr.	LA 1	Chicago
Attebury, Charles William	Agr 2	Hillsboro
Attebury, Clara Mabel	HSAgr 1	Hillsboro
Atwell, Bernice Elizabeth	LA 1	Champaign
Atwood, Harold	Ch 2	Aurora
Austin, Sewall Everett	A 2	Chicago
Avery, John Madison	SS	Johnston City
Avey, Daniel Manning	CE 4	Mattoon
Axelson, Alphyld Josephine	LA 3	Moline
Axtell, Lee Reuben	LA 1	Elizabeth
Bach, Beulah Winifred	LA 3 SS	Urbana
Bachmann, Frank	Ch 4	Watervliet, N. Y.
Back, Robert	ChE 3	Chicago
Bacon, Grace Martha	LA 1	Lockport
Baer, Frederick Eugene	LA 3	Belleville
Bagley, Glen David	EE 2	Elgin
Bagley, Ruth Gertrude, A.M.		
(Univ. of Cal.), 1905	SS	Detroit, Mich.
Bailey, Charles Wilber, Jr.	ME 1	Geneva
Bailey, Ernest Henning	EE 4	Geneva
Bailey, Roscoe Edward	EE 1	Newman
Bainer, John David	BLA 1	Marysville, O.
Baines, Oscar Roland	BLA 2	Urbana
Bainum, Glenn Cliffe	SS	Paxton
Baird, Mrs. Bertha Salsich	Lb 4	Cincinnati, O.
Baird, Ethel May	HSLA 1	Urbana
Baird, Florence	LA 3	Indianola
Baird, Thomas	SS	Woodland
Baker, Charlotte Phelps	LA 3	Sullivan
Baker, Edwin Ernest	Agr sp	Clinton
Baker, Elmer Jerome, Jr.	LA 3	Kenilworth
Baker, Laura Minerva	LA 2	White Hall
Balcom, Henry Clarke	Agr. 4	Indianapolis, Ind.
Baldwin, Ada Lillian	HSAgr 3	Dixon
Baldwin, Janet Christine	LA 1	Paris
Baldwin, Mamie Anna	LA 2	Rock ford

Balis, William Henry	Agr 4	St. Charies
Ball, Jonas Hamilton	Agr 3	Toluca
Bandy, Harold James	LA 3	Granite City
Bane, Geneva Mae	HSAgr 3	Pontiac
Bane, Juliet Lita	HSAgr 3	Pontiac
Banning, Sarah Louise	LA 1	Chicago
Bannister, Bryant	ME 3	Kewanee
Bannister, Julian Clyde	CE 3	Naperville
Bannister, Kimball	Md 3	Kewanee
Barber, Frederick Alfred	L 1	Ft. Wayne, Ind.
Barber, Julia Minnetta	LA 1	LaFox
Barber, Leslie Carroll	LA 1	LaFox
Barber, Phil Chase	ME 1	Chicago
Barbour, Ralph Waldo Emerson	Agr 1	Urbana
Barclay, Herbert Thomas	CE 1	Kansas City, Kan.
Bardwell, Richard Woleben	LA + L + 1	Aurora
Barger, Thomas Morse, A.B., 1907	SS	Normal
Barker, Helen Babb	HSAgr 1	Springfield
Barker, Sylvia	HSLA 1	Springfield Spring field
Barkley, Guy Carleton, Jr.	CE 3	Carlyle
Barloga, Jesse August	A 4	Pecatonica
Barlow, John Edmund	LA 2	Urbana, O.
Barnard, Hughes Albert	EE 1	Moline
Barnes, Allen Littler	A 1	Harrisburg
Barnes, Frank Eugene	BLA 3	Norris City
Barnes, Helen Mabel	A 1	River Forest
Barnes, Orlin Miner	EE 3	Springfield
Barnes, Robert Raymond	Ch 2	River Forest
Barnes, Walter Cherry	BLA 2	Springfield
Barnett, Charlie John	EE 1	Pana Pana
Barnett, Joseph Henry, Jr.	A 1	Chicago
Barnett, William Floyd, A.B., 1907	L 3 SS	Barnett
Barr, Nelson Rogers	EE 4 SS	Quincy
Barrett, Agnes	SS	Mattoon
Barrett, Sarah Anita	LA 3	Butler
Barrick, Nelle Elizabeth	HSLA 1	Villa Grove
Barringer, Edna	SS	Hillsboro
Barron, James Leslie	Agr 1	
Barrow, Leslie J	Agr 1	Oak Park Franklin, Ind.
Barry, Pierce	ME 3	Pontiac
Barry, Mary Cordelia	LA 2	
•		Champaign

		70
Barth, George Andrew Christian	CE 4	Pana
Barton, Percy Levi	CE 3	Champaign
Bartmess, Ernest Lee	ME 2	Kansas
Bascome, Bartow Strang	CE 2	Elmira, N. Y.
Bash, Henry Edwin	Agr 2	Huntington, Ind.
Bashen, George Bergen	ME 4 SS	Bowen
Bashore, Ethelbert Jay	SS	Palmyra, Mo.
Bassett, Frank Jonathan	ME 1	Tuscola
Bassett, John Besler	EE 4	Galesburg
Bauer, Frank Stanley	ME 3	Champaign
Bauer, Franklin William	BLA 2	Compton
Bauer, Otto Anton	AE 4	Horton, Kan
Baum, Arthur Edward	BLA 2	Morris
Baum, Benjamin Franklin	CE 4	Phoenix, Ariz.
Bauman, Louis Peter	Agr sp SS	Springfield
Baumann, Theodore Andrew	Md 2	Cherry Valley
Baumberger, Charles Anthony	S $sp$	San Antonio, Tex.
Baumgardner, Maude Lunette	SS	Champaign
Baxter, Bessie Mary	LA 1	Astoria
Baxter, Florence Gabrielle	S 3	Nauvoo
Baxter, Vaughn Butler	Agr 1	Ottawa
Baysinger, Millard Winfield, Jr.	Md 1 SS	Grand Tower
Beadell, Ethel Vivian	LA 1	Elizabeth
Beak, Kurt R	A 2	Chicago
Beall, Charles Wesley	BLA 3	Alton
Bean, Ralph Howard	A 3	Blue Mound
Bear, John Logan	CE 3	Rockford
Bear, Louis Raymond	BLA 4	Ludlow
Beattie, George Wilson	SS	Kaneville
Beatty, Joe Earle	BLA 1	Raymond
Bebb, Herbert	LA 4	Chicago
Bebb, Kenneth	Agr 2	Chicago
Bebb, Mabel Florence	HSLA 2	Chicago
Bebb, Maurice Robert	Agr 1	Chicago
Beck, Donald Wright	Agr sp	Chicage
Beck, Herbert Clinton	CE 3	Harvard
Beckemeyer, Harry John	SS	Beckemeyer
Becker, Coulton Meldron	SS	St. Louis, Mo.
Becker, Maurice Lewis	CE 1	Chicago
Becker, Oswald Rupert Fred	AE 1	Danville
Beckett, John Ralph	Agr 1	Blue Mound
Decirco, contractor	49, I	Louis Mound

Darley Frank Friendl	SS	LaSalle
Beeby, Frank Fairwell Beecher, Howard Benjamin	SS SS	Peoria
Beemer, Alexander William	ChE 4	Compton
	Agr 2	Chicago
Beers, Cyrenius, Jr.	Agr 2 SS	Champaign
Beers, Harry Charles	LA 4 88	Barrington
Beinlich, Bernhard Augustus	Md 1 SS	Vandalia
Belknap, Clarence Herbert	EE 2	v anaana Pontiac
Bell, Charles Jackson	CE 4	Tolono
Bell, Charles Manley	EE 1	
Bell, Emerson DeWitt	EE 1 EE 4	Pontiac
Bell, Herbert Eugene		Sterling
Belsley, Benjamin Rudolph	AE 3	Roanoke
Belt, Jefferson Hall	EE 2	Saybrook
Belting, Charles Henry	Agr 2	Urbana
Benjamin, Fred Parker	L 3	Watseka
Bennett, Hazel May	LA 2 SS	. Aurora
Bennett, Nelson	Agr 1	Vincennes, Ind.
Benson, Bertha Eudora	LA 3	Moline
Benson, Emil	LA 1	Batavia
Benson, Joe Pope	LA 3	Herrin
Bent, George Mannington	CE 1	Morrison
Benton, Fred Stanton	RE 3	For sythe
Bentz, George William	CE 3	Chicago
Benzin, Basil	SS	Minneapolis, Minn.
Berg, Mrs. Gwendolin	Art sp	Watertown, N. Y.
Bérg, Oliver J	Ch 1	Oak Park
Berger, Adda Elizabeth	LA 4	Dolton Station
Berger, Frederick Edward	A 2	Davenport, Ia.
Berger, Wallace	AE 1	Chicago
Bergert, Henry Amos, B.S., 1906	ME 4	Moline
Bering, Horace Lee	ME 1	Decatur
Berkema, Ira John	LA 4	Onarga
Berkemeyer, Walter Charles	AE 2	East St. Louis
Bernard, Leslie Cosby	ME 1	Dayton, O.
Berninger, Harriett Josephine	SS	Mt. Carmel
Bernreuter, Walter	S 4	Mt. Olive
Berns, Max Arnold	CE 4	Chicago
Bernstein, Louis Stewart	CE 3	Chicago
Berolzheimer, Clarence Phillip	Agr 1	Chicago Heights
Berolzheimer, Hannah Beulah	LA 4	Chicago Heights
Berry, Ray Chamberlain	BLA 4	Toledo, Ia.

	Berschbach, Clarence Frederick	ME 2	Kewanee
	Bessems, Josephine Louis	HSLA 1	Chicago
	Beveridge, Charles Eden	CE 4	Casner
/	Bevis, Albon	AE 4	Urbana
	Bianchi, José	SS	Quincy
	Bickel, Mary Andrews, A.B., 1909	SS	Geneseo
	Bickenbach, Frederick Robert	Agr sp	Freeport
	Bicknell, Fay Helen	HSAgr 1	Lovington
	Biebel, Walter Risdon	BLA 2	Belleville
	Biester, Alice	S 2	Belvidere
	Bigelow, Mary Constance, A.B., 1899	Lb 5	Champaign
	Biggs, John David	L sp SS	Greenville
	Bilhorn, Walter Edward	CE 1	Chicago
	Billerbeck, August	Agr sp	Cullom
	Billman, DeWitt	L 1	French Village
	Birdsall, Grace Lenore	SS	Swancreek
	Birdsell, Eva Louise	LA 1	Champaign
	Birely, Everett Manning	LA 1	Billings, Mont.
	Birks, William Alfred	SS	Cornland
	Black, Charles Day	EE 3	Plymouth
	Black, Clara Blanche	Mus 1	Urbana
	Black, Grace Josephine	LA 4 SS	Urbana
	Black, Robert Overton	BLA 2	Urbana
	Blackburn, Harry Edmund	Md 2	Princeton
	Blackburn, Ralph	LA 1	Elgin
	Blackburn, Robert Edwin	Agr 1	Quincy
	Blackford, James Allen	S $sp$	Potomac
	Blaeuer, Anna Agnes	SS	Carlinville
	Blaeuer, Mary Georgia	SS	Carlinville
	Blaine, Charles Edmund	L 3	Avalon, Mo.
	Blair, Alice Ledlie	Lb 5 SS	Urbana
	Blair, Mittie	HSAgr sp	Arthur
		Agr sp	Toulon
		MSE 3	Lockport
		HSAgr 2	Arthur
	Blair, Hattie Mary	SS	Salem
	Blaisdell, Edward Brow	MSE 2	Fall River, Mass.
		ME 1	Kansas City, Mo.
	.,	L 3 SS	Findlay
	, , , , , , , , , , , , , , , , , , , ,	A 1	Vincennes, Ind.
	Blim, Charles Hewes	L 1	Crete

Blim, Warren Caldwell	BLA 1	Crete
Bliss, Helen Eva	LA 3	Lexington, Miss.
Block, Elmer Royal	BLA 2	Champaign
Block, William Harris	A 2	Chicago
Blomfeldt, Allen Axel	ME 4	Chicago
Blood, Charles Reader	CE 2	York, Neb.
Blume, Bernardine Caroline	LA 2	Chicago
Boardman, Harry Clow	CE 4	Plainfield
Bock, Harry Obee	Agr 1	Highland Park
Bock, Paul Theodore	CE 1	Chicago
Boden, Joseph King	EE 3 SS	Oquawka
Bodenschatz, Frank Nicholas	ME 1	Chicago
Boettiger, Louis Angelo	A 2	Chicago
Bollan, Loris Ernestine	LA 1	Havana
Bollinger, William Nicholas	CE 3	Sycamore
Bollman, Minnie Joanna	LA 4	Champaign
Bond, Augusta Eleanor	LA 3	Urbana
Bond, George Thomas	Agr 4	Charleston
Bond, Harry Lee	Agr 2	Charleston
Bonham, Martha Elizabeth	LA 1	Watseka
Bookwalter, Grace May	SS	Gardner
Boomer, Simeon E., A.B., 1909	SS	Buncombe
Boon, Elvin Edwards	EE 3	Chrisman
Boone, Thomas Chester	L 1	Urbana
Booze, Ralph Walker	EE 2	Sullivan
Borgelt, Eda Marie Charlotte	LA 1	Havana
Borngasser, Fred Walter	Agr 2	LaSalle
Bornmann, John Henry, Jr.	Ch 4	Quincy
Bose, Pavitra Kumar	EE 3	Mysemsingh,
		Bengal, India
Boston, John Robert	BLA 2	Yorkville
Botts, Vesper Garnett	HSAgr 1	Prague, Okla.
Bourdette, Bertha Estella	LA 2 $SS$	Chicago
Bouscher, Nellie Genevieve	LA 3	DeSota
Bowers, Lester Edward	Md 2	Chicago
Bowler, Alida Cynthia	LA 4	Alton
Bowman, Mrs. Ethel Colombe	Mus sp	Champaign
Bowman, Horace Dale	CE 4	Bourbon, Ind.
Bowman, Lang Fulton	$Md \ \mathcal{Z}$	Olney
Boyd, Florence Ruth	LA 1	Otisville, N. Y.
Boyd, Leland Edwin	CE 2	Norris City

Boyd, Raymond Otto	EE 2	Bradford
Boyd, Roland Humphrey	ME 1	Sheffield
Boyle, Clarence, Jr.	ME 4	Chicago
Boys, Thomas Lyle	Cer 1	Streator
Bradford, Mrs. Florence Maude	Mus sp	Urbana
Bradley, Arthur James	A 2	Cedar Rapids, Ia.
Bradley, Charles Emery	A sp	Blue Mound
Bradley, Eugene Patrick	ME 1	St. Louis, Mo.
Bradley, Eugenia	LA 2	Loda
Bradley, Perry Elmer Newton	Agr 2	Greenview
Bradrick, Lucy Center	LA 1	Crescent City
Brady, Joseph Louis	A 3	Movar, Ia.
Braeuninger, Ella Christine	LA 3	Champaign
Brakefield, William Walter	ME 1	Chrisman
Braley, Ross Preston	REE 4	Harvey
Bramhall, Arthur Eugene	A 4	Michigan City, Ind.
Bramhall, Ralph Roger	AE 4	Michigan City, Ina.
Branch, Emily Ivaloo	LA 2	Champaign
Brand, Etta Lizzie	SS	Chicago
Brand, Sara Hazel	LA 4	Normal
Brandes, William Walter Carl John	CE 1	Chicago
Brander, Alexander Rudolph	A 1	Chicago
Brands, Edgar Gregory	LA 3	Prairie du Rocher
Brasen, Herbert Spencer	CE 1	Chicago
Brayton, Charles William	EE 1	Blue Island
Brech, Royal Charles	Agr sp	Virginia
Bregger, Thomas	Agr 4	Rock Island
Bremmer, Charles William	CE 2	LaGrange
Brennan, Wintress	LA 1	Ogden
Bresnahan, George Thomas	ChE 1	Sterling
Brewer, Claude Harold	L 3 $SS$	Danville
Brewer, Beverley	ME 1	Chicago
Brewer, John H, A.B.,		
(Austin College), 1899	SS	Milford
Brewster, Walter Herbert	SS	Byron
Bricker, Garland Armor, B.Ped.		
(Lime College), 1907	SS	Urbana
Bricker, Mrs. Mabel McClelland	Mus sp	Urbana
Briggs, Strother Ambrose	Agr 3	Minier
Bright, Orville Thomas, Jr.	Agr 2 .	Chicago
Brinkerhoff, Verne William	ME 1	Rock Island

Bristow, James Wilhyte	SS	Girard
Brittin, Charles Henry	SS	Cantrall
Broaddus, Elizabeth Minerva	LA 3	Magnolia
Broadhead, William James	Agr 2	Sedgwick, Col.
Brockmeyer, Edwin John	EE 1	East St. Louis
Brode, Laurence Partridge	RE 2	Los Angeles, Cal.
Brook, Elizabeth Annie	LA 3	Stronghurst
Brooks, Clara Mabel	LA 3	Saunemin
Brooks, Elizabeth Maude	LA 1	Urbana
√ Brooks, Fannie Maria	LA 2	Saunemin
Brooks, Raymond Wentworth	CE 3	Urbana
✓ Brooks, Verna	S 4	Macon
Brougham, Maude Victoria	SS Saul	t Ste. Marie, Mich.
Brown, Andrew	Agr sp	Sparta
Brown, Charles Darwin	Agr 1	Ridge farm
Brown, Clifford Allen	Agr 1	Normal
Brown, Lelah	SS	Hillsboro
Brown, Edward Webb	EE 4	Metropolis
Brown, Ella Stewart	LA 3	Rushville, Neb.
Brown, Francis Andrew	A 2	Minneapolis, Minn.
Brown, Horace Trowbridge	CE 4 SS	Quincy
V Brown, Hugh Alexander	EE 3	Urbana
Brown, James Fearon	LA 1	Urbana
Brown, James Howard, M.S., 1909	SS	Jackson ville
Brown, John Howard	MnE 2	Paris
Brown, Olive May	Mus 1	Champaign
Brown, Paul Donald	L $sp$	Glencoe
Brown, Ralph Edgar	Cer 3 SS	Hillsboro
Brown, Robert Allan	Agr 1	Morton Park
Brown, Robert Ellsworth	8 4	Danville
Brown, Sherwood Eklund	Agr sp	Chicago
Brown, Verna Louise	LA 1	Macomb
Brown, Willis Simpson	ME sp	Belvidere
Browne, Cyril Gordon	ME sp	Waukegan
✓ Brownfield, Lelah	LA 4	Urbana
Brubaker, Lewis Allen	A 3	Indianapolis, Ind.
Brumme, Frank Julius	EE 2	Cooksville
Brundage, Florence Louise, A.B.,		
1908	Lb 5	Muskegon, Mich.
Brunker, Herschel Victor	Md 1	Riley, Ind.
Brunson, Arthur Maxwell	CE 1	Joliet

	Brush, Rapp	CE 1	Carbondale
	Bryan, Earl Inman	AE 2	Miles City, Mont.
/	Bryan, Sarah Elizabeth, A.B., 1908	Lb 5	Champaign ·
	Buchanan, Wilbur L.	LA 4 L 1	Lawrenceville
	Buchele, Mary Hope	SS SS	Danville
	Buck, Philip Eliot	CE 1	
		CE 3	Chicago
	Buckingham, Arthur Ward		Chicago
	Buckley, Warren	L 1 EE 1	Chicago
	Buffington, Frank Harris		Middletown, O.
	Bulkeley, Oscar Ernest	CE 3	Butte, Mont.
	Bullard, Edward Wesley	CE 1	Mechanicsburg
	Bullard, Geraldine Alice	CE 1	Mechanicsburg
	Bullock, Edwin Corliss Atlee	A 4	Carbondale
	Bulot, Francis Henri	MSE 1	Chicago
	Bumstead, Alice Amelia	HSAgr 1	Dundee
	Bunch, Mamie	HSS 3	Arcola
	Bundy, Carroll Edwin	EE 1	Iroquois
	Bunge, Ralph William	ME 1	Chicago
	Bunn, Charles Montgomery	EE 4	Chicago
	Bunn, Nixon Laurence	CE 1	Spring field
	Bunting, Charles Antrim de Krafft	ME 3	Quincy
	Burgener, Claude Emanuel	LA 4	Moweaqua
	Burgess, Thomas Godfrey	CE 2	Aurora
	Burgess, Wilmot Ames, A.B.,		
	(University of Toronto), 1908	SS	St. Louis, Mo.
	Burgner, Harley Thompson	EE 4	Carthage
	Burkhart, Ralph	Md 1	Marion
	Burley, Walter Bromley	ME 3	Edison Park
	Burnell, Kingsley Abner	CE 4	Joliet
	Burnett, Fred William	Agr 3	Urbana
	Burns, Cyril Agard	LA 4	Fairbury
	Burns, Joe Kossuth	EE 3 SS	Greenview
	Burns, Ruth Mitchell	LA 3	Macomb
	Burrell, Ethel North	LA 3	Cincinnati, O.
	Burstrom, Stephen William	EE 2	Albion, Ida.
	Burt, John Little	SS	Chicago
	Burt, Paul Gordon	A 4	Superior, Neb.
	Burtis, Altha	LA $sp$	Hudson
	Burton, Charles William	LA 1	Edwardsville
	Burton, Earl K.	CE 3	Champaign
	Burton, Laurence Vreeland	ChE 3	Aurora
	,		

Burwash, Arthur Ernest	Agr 3	Savoy
Burwash, Clarence Fletcher	Agr 2	Champaign
Burwash, Mabel Estella	LA 2	Champaign
Burwash, Mary Gladys	LA 1	Savoy
Buschman, Louis Herman Adrian	S 1	Belleville
Busey, Charles Bowen, A.B., 1908	ME 4	Urbana
Busey, Lettie Louise	Mus 1	Urbana
Busey, Mrs. Verna Kerker	Mus 2	Urbana
Bushnell, Allen Bynner	L $sp$	LaGrange
Bushong, Mabel Leone	LA 2 SS	Danville
Butler, Crillis Newton	AE 3 SS	Chicago
Butler, Ralph Otis	Agr sp	Monmouth
Butler, Roland Glenn	ME 3 SS	Urbana
Butler, William Glenn	LA 1	Cairo
Butters, Howard Monreau	ME 3	Chicago
Butzer, Byrdie Blye	SS	Urbana
Butzer, Clarence David	ME 4 SS	Hillsdale
Butzer, Glen Douglas	CE 2	Hillsdale
Butzer, Verna Viola	SS	Urbana
Butzow, Clarence R	SS	Chicago
Buyers, Donald Erskine	ME 3	Sterling
Buzick, Jessie Winifred	ArtLA $sp$	Champaign
Buzick, John W	CE 4	Champaign
Byrnes, James Edward	Agr sp	Evanston
Byron, Lester Arthur	A 3	Peoria
Cadogan, George Henry	Agr 2	Quincy
Cahoon, Guy Forsythe	A 2	Wenona
Caldwell, Brice Jonas	EE 3	Champaign
Caldwell, Charles Edwin, Jr.	S 3 SS	Chicago
Caldwell, Eva	Mus 1	Champaign
Caldwell, Will Carleton	AE 4	Monticello
Caley, Floy E	LA 3	Champaign
Caley, Mary Clellah	LA 3	Champaign
Callery, John Edward	Agr sp	Princeville
Callery, Frank Augusta	ME $sp$	Princeville
Camp, Willard Russell	LA 3	Bement
Campbell, Arthur Harvey	AE 1	Macomb
Campbell, David Joseph	LA 1	Olney
Campbell, Elmer Franklin	CE 1	Levington
Campbell, Grace Amelia	LA 1	Urbana
Campbell, Neil Nelson	RCE 4	Zion City
		0 9

Canfield, Ruth Mae	LA 1	Holton, Kan.
Cannon, Fermor Spencer	A 3	Indianapolis, Ind.
Cantrall, John Harry	Agr sp	Spring field
Capek, Ladeslav Vaclav	EE 3	Chicago
Carlisle, Gower Nathan	CE 3	Geneva
Carlson, Charles Algot	ME 3	Chicago
Carlson, Morton Russell	Agr 2	Moline
Carlson, Paul	CE 4	Lindsborg, Kan.
Carmichael, Herbert Baird	RE 1	Eaton, Ind.
√ Carmichael, Wilbur Jerome	Agr 1	Rochelle
Carnahan, Orson Allen	ME 4	Bolivar, N. Y.
Carnahan, William Ernest	Md 1	Bonaparte, Ia.
Carnes, Esther Ella	LA $sp$	Urbana
Carney, Ralph Thomas	CE 1	Chicago
Carpenter, Niles	BLA 1	Evanston
Carper, Bess E.	LA 1	Buda
Carr, Charles Tremm	L 1	* Trenton
Carr, Ren W	Agr sp	Armington
Carr, William Charles	Agr 1	Chicago
Carrero, José Oriol	ChE 2 SS	Mayaguez, P. R.
V Carson, Harry Young	MSE 3 SS	Danville
Carter, John Leslie	Agr 1	Rossville
Carter, Roy Rudy	CE 3	Jacksonville
Carter, Samuel Carroll	CE 1	Waverly
Cartwright, Charles Findlay	CE 3	Collierville, Tenn.
Case, Flora Margaret	LA 3	Dunlap
Case, Harold Clayton	Agr	Dunlap
Casey, Howard	CE 1	Mt. Vernon
Cash, Harold Smith	Agr 2	Harvard
Cass, Elizabeth Henrietta	LA 3	Chicago
Cass, Sherman	SS	Urbana
Cassell, H Morton	BLA $sp$	Mexico City
Casserly, Joseph Bernard	RE 1	Champaign
Cassingham, Florence Adelaide	LA 2	Champaign
Castile, Sarah Myrtle	LA 4	Danville
Cate, Hubert Arthur	Agr 1	Champaign
Catlett, Shirley Tilton	Agr sp	Fairmount
Cattron, Conrad Lee	Agr sp	Ellisville
Cattron, Kie	Agr 4	Fairview
Cattron, Thomas	EE 1 SS	Ellisville
Caughlin, Ralph Hawthorne	SS	East St. Louis

Cayton, Mildred Mae	LA 1	Champaign
Cecil, Eugene	ME 1	Champaign
Cecil, Jessie Isabel	S $sp$	Princeton
Cessna, Maud Opal	LA 4	Grinnell, Ia.
Chaddock, Blatchford	EE 1	Polo
Chaffee, Lura Josephine	LA 3	Shelbyville
Challand, Florence Eliza	S sp	Shabbona
Challand, Grace	S 4	Shabbona
Chamberlain, Edith Mae	ArtLA $sp$	Rogers Park
Chamberlain, Lucius Orville	RE 3 SS	Champaign
Chambers, Chester Raymond	Agr 2	Pierson Station
Chambers, William Robert	CE 1 .	Oklahoma City, Okla.
Champion, Edwin Van Meter	L 1	Mansfield
Chaney, Harold Brockway	ME 4	Bloomington
Chang, Vun-din Chinzun	Agr 1	Shanghai, China
Chapman, Denson Williams	CE 2	Chicago
Charni, Hazel Deette	LA 1	Brookville, Ind.
Chase, Frank Maxwell	Agr 2	Harvard
Chase, Harry Howell	SS	Quincy
Chase, Paul Norman	Agr 1	Aurora
Chavous, Arthur Melton	EE 2	Columbus, O.
√ Checkley, Joseph Harvey	Agr 1	Mattoon
Chenoweth, Homer Eldon	LA 1	South Charleston, O.
Cimbalo, Michele	LA 1	Rose, Italy
Chinlund, Joseph Ferdinand	EE 4	Chicago
Chipps, Alta Fern	LA 2	Sullivan
Chipps, Paul L	BLA 1	Sullivan
Christensen, Camillo Chopin	CE 4	Peoria
Christensen, Otto	SS	Chicago
Chumley, Edith Bland	SS	Springfield
Clancy, William Clarence	ME 2	Chicago
Clare, William Henry	A 2	Glen Ellyn
Clark, Mrs. Alice Virginia		v
Broaddus, B.S., 1891	LA 4	Urbana
Clark, Ernest McChesney	Agr 1	Rock Island
Clark, James Russell	EE 1	Chrisman
Clark, John N	SS	Pittsfield
Clark, Lawrence Everett	EE 1 SS	Rushville
Clark, Meribah Eliza	LA 1	Mt. Sterling
Clark, William Gladstone	Agr 2	Carthage
Clarke, Dan Leavitt	Agr sp	Jacksonville
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	Clarke, Helen Beulah	HSAgr 1	Urbana
	Clarke, Philena	LA 3	Noblesville, Ind.
	Clarke, Robert Haymond	KE 2	Noblesville, Ind.
	Claussen, Arthur William	ME 1	Chicago
	Clawsen, Kenneth Raymond	A 1	Atlanta
	Clayton, John Herman	L sp	Johnston City
	Cleave, Scott William	Agr 3	Ottawa
/	Cleavinger, John Simeon, A.B., 1909	Lb 5	Champaign
	Cline, Bessie Florena	LA 2	Monticello
	Cline, Henry Cornelius	Agr sp	Athens
	Cline, Marie Pauline	HSAgr sp	Chicago
	Climer, Mary Ella	LA 1	Palestine
	Clyne, Kathleen Marcella	LA 1	Maple Park
	Cobb, Charles Carroll	ME 3	Chicago
	Cochran, Harry Rusling	ChE 1	Sandwich
	Coe, Harry Harmon	EE 4	Dixon
	Coffey, Elmer Washburn	EE 1	Blue Island
	Coffey, Joel Simmons	Agr sp	Hartsville, Ind.
	Cogswell, George Owen	AE 3 SS	Champaign
	Cogswell, Robert Corman	AE 3	Champaign
	Cohen, Frank W	Ch 1	Henderson, Ky.
	Cole, Hugh Leon	LA 1	Geneseo
	Coleman, William Francis	ME 4	Chicago
	Collier, Edith Blanche	LA 1	Bethany
	Collins, Elbert Adrian, A.B.,	511 1	Domany
	(Illinois College), 1901	SS	Marseilles
	Collins, Oda Amelia	LA 1	Carlinville
	Colombo, James Henry	BLA 1	Herrin
	Colp, Logan	SS	Marion
	Colville, John Robert	EE 2	Galesburg
/	Colvin, Carl	Agr 2	Olney
	Colvin, Ernest Marks	ME 2 SS	Urbana
	Colvin, Jay Austin	BLA 1	Chicago
	Combe, Ella Marie	SS	Highland
	Compton, Richard Osborne	Agr 4	Chicago
	* '	LA 2	Chicago Chicago
	Comstock, Guy Clifford Conard, Jonah W	BLA 2	Monticello
	•	L 1 SS	Urbana
	Condit, Roy Willoughby Cone, Richard Wortington	Mus sp	Muskegon, Mich.
	,	EE 2 SS	Cabatuan,
	Confessor, Valentin	EE Z BB	Iloilo, P. I.
			1000, 1. 1,

Conley, Josephine V	LA 1	Streator
Connell, Edwin Lewis	EE 2	Joliet
Connor, Charles Joseph	CE 2	Newton
Conover, Charles Sanderson	EE 1	Maroa
Conover, George Stribling	Agr sp	Chicago
Conrad, Cassius Bannister	BLA 2	Sycamore
Conrad, John Edwin	L $sp$	Highland Park
Constant, Herbert Harper	ME 2	Spring field
Conver, Lulu M	SS	Yates City
Converse, Edward Chapman, A.B.,		
1904	SS	Champaign
Cook, Clifton	Agr sp	Odin
Cook, Samuel Sampson	RE 3 SS	Clinton, Ia.
Cooke Bennett Wellington	A 1	Chicago
Cooke, Delmar Gross	CE 2	Piper City
Cooley, Norma	LA 2	Maywood
Coolidge, Elwin Ray	EE 1	Winnebago
Cooper, Agnes Bouton	Lb 4	Kansas City, Mo.
Cooper, George Alfred	ME 4	Aurora
Cooper, Hugh Edwin	Md 2	Peoria
Cooper, Mark Ament	Agr 3	Farming dale
Cope, Walter Allen	Agr sp	Tonti
Copenhaver, Murray	Agr 2	Polo
Corbett, Howard Harden	Agr 1 SS	Princeville
Corbett, Maude Irene	SS	Princeville
Corbey, Leon Joseph	A 2 .	Elgin
Corbin, Carl	BLA 1	Urbana
Corboy, William Joseph	SS	Chicago
Corey, Austin Flint	Md 1	Van Buren, Ind.
Corke, George Raymond	EE 1	Evanston
Corlett, Gertrude	Mus 1	Chicago
Corley, Howard	CE 1	Decatur
Cornwell, Earl Zink	CE 4	Paris
Cortis, Frederic Boyden	LA 1	Hinsdale
Corwin, Ellera James	Ch 1	Annawan
Costello, Albert Dale	Ch sp	Urbana
Couch, Edward Branson	SS	Peoria
Coultas, Wilbur John	EE 1	Winchester
Coulter, Frank Theodore	CE 1	Upper Alton
Coulter, James Henry	CE 2	Pittsfield
Council, Hardy Ed	Agr sp	Elkhart

Cox, Claude Gaylord	Agr 1	Macomb
Cox, Edna Elizabeth	LA 3	Sheridan, Ind.
Cox, George Lawrence	S 1	Fairfield
Cox, Henry Lee	SS	New Burnside
Cox, Mary Frances	LA 1	Sandwich
Cox, Rex Warfield	Agr 2	Bement
Crackel, Anna Bell	SS	Urbana
Craig, Hazel Iona	LA 4	Champaign
Craig, Nelson Earl	CE 4	Carthage
Craigmile, Charles James	MSE 1	Rantoul
Crain, Chester McElfresh	BLA 1	Urbana
Crane, Eva Retta	LA 3	Rantoul
Crapnell, Clay Everett	Agr 3	Joy
Crawford, Armon Justin	LA 1	Tolono
Crawford, Harlan Marion	L $sp$	Urbana
Crawford, Harold Hamilton	A 2	Rochester, Minn.
Crawford, Luvern Henrietta	LA 2	Champaign
Creighton, Edward Woodin	LA 1	Fair field
Cress, James Washington	Agr 3	Hillsboro
Criss, Edward	SS	Hull
Crist, Edward Bernardt	CE 1	Wauke $g$ an
Criswell, Lois	Lb 4	Tacoma, Wash.
Croll, Paul Revere	Ch 1	Beardstown
Cronin, Joe Francis, Jr.	CE $sp$	Rockville, Ind.
Crooks, Harold Fordyce	ME 1	Chicago
Crosby, Carroll Stephen	MnE 1	Chicago
Cross, Lyman Goodrich	CE 1	Taylor ville
Crossland, Hiram Edward	RCE 4	Sheldon
Crossland, Viola June	$HSAgr\ sp$	Sheld on
Crossman, Arthur Herbert	Agr sp	Milwaukee, Wis.
Crouch, Willard Slayton	Agr $sp$	Cohocton, N. Y.
Crow, William Leslie	LA 1	· Chatham
Crowder, Benjamin Harrison	LA 2	Bethany
Crowell, Paul Calvin	CE 4	Chicago
Cruse, Milton	LA 1	Sterling
Crutchfield, Worden Alexander	EE 1	Chicago
Cryder, Lewis Sherrill	Agr 1	Minooka
Cullings, Ross Elmer	EE 4	Elmwood
Cummings, Orris Andrew	SS	Pontiac
Cummings, Preston Wirum	ME 3 SS	Buda
Cunning, George Stanley	A 3	Cedar Falls, Ia.

Cunningham, Richard Aloysius	L 1	Helena, Ark.
Cunningham, Thomas Albright	BLA 1	Rossville
Curtis, Florence Rising	LA 4	Odensburg, N. Y.
Cushing, Charles Farwell	L 1	Mt. Morris
Cushing, Donald Frederick	Agr 1	Champaign
Cutter, Watts Cyrus	Agr 4	Oswego
Dabney, John Blanton	CE 4	Greenville, Miss.
Dadant, Clemence	Mus 1	Hamilton
Daggett, John Birney	Agr sp	LaGrange
Dahringer, Homer Walston	CE 1	Waukegan
Dalbey, Everett Leslie	LA 1	Muncie
Dalbey, Will Edward	Agr 1	Taylor ville
Dale, Harvey Miller	CE 2	Winnetka
Dale, William Wilbur	LA 4 $SS$	Blue Island
Dalenberg, Peter	AE 3	South Holland
Dallenbach, Karl M	LA.4	Champaign
Dallenbach, Louis Edwin	LA 2	Champaign
Daly, Samuel Lester	A 1 $SS$	Metropolis
Dang, Jar-Yen	SS	Kwangsi, China
Danielson, Willis Chester	MSE 4	Leland
Darrah, Juanita Elizabeth	S 1	Champaign
Dasso, David	ME 2	Lima, Peru
Daugherty, James Thompson	Agr 2	Elizabethtown, Ind.
David, Louis Dudley	LA 1	Chicago
Davies, Harold Earl	Agr 1	Maywood
Davies, Raymond Evan	ME 1	Bement
Davis, Allen Winslow	Agr 1	Maywood
Davis, Chester Watson	Agr 2	Holton, Kan.
Davis, George Elmer	AE 1	Oregon
Davis, Gertrude Curtis	LA 4	Holton, Kan.
Davis, Howard Scott	EE 3 SS	Vandalia
Davis, Hugh Youtsey	AE 3	Lincoln
Davis, Ida Belle	LA 4 SS	Champaign
Davis, Jessie Viola	SS	Greenville
Davis, Joel Thomas	L $sp$	St. Joseph
Davis, John Walker	CE 2	Poseyville, Ind.
Davis, Mallie Leona	LA 1	Fairmount
Davis, Pauline Zuleika	HSAgr 1	Loda
Davis, Reba	Lb 4	Champaign
Davis, Robert Henry	L $sp$	Omaha, Neb.
Davison, Ruth Leone	LA 1	Marshall
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Aar 1	Bement
	Decatur
-	Chicago
LA 1	Peoria
CE 1	Chicago
	Peoria
BLA 1	Milford
LA 2	LaMoille
ChE 2	Chicago
BLA 3	Chicago
Mus sp	Urbana
EE 1	Yankton, S. Dak.
LA 2	Geneseo
Agr 1	Cameron
CE 2	Jacksonville
SS	Kalamazoo, Mich.
SS	Pinckneyville
BLA 2	Crookston, Minn.
LA 4 $SS$	Normal
Agr 1	Chicago
-	v
SS	Urbana
Agr 1	Lewistown
ChE 1	East St. Louis
Agr 1	Harris
Agr sp SS	Springfield
EE 2	Vermont
EE 2	Woodstock
EE 2	Chicago
CE 4	Aurora
CE 1	Assumption
AE 2 SS	Moline
LA $sp$	Urbana
HSLA 3	Broadlands
LA 4	Urbana
LA 1	Urbana
AE 3	Bloomington
LA 1	Urbana
Agr 2	Paris
SS	Mascoutah
	CE 1 A 4 BLA 1 LA 2 ChE 2 BLA 3 Mus sp EE 1 LA 2 Agr 1 CE 2 SS SS SS BLA 2 LA 4 SS Agr 1 ChE 1 Agr 1 Agr sp SS EE 2 EE 2 CE 4 CE 1 AE 2 SS LA sp HSLA 3 LA 4 LA 1 Agr 2

<sup>\*</sup> Deceased.

Dickmann, Charles Carl	SS	Pontiac
Diener, Wayne Rufus	EE 2	Harvard
Dietrich, Rufus Samuel		ek River Falls, Wis.
Dill, James Monroe	L 1	Belleville
Dillavou, Roscoe Clarke	LA 3	Tolono
Dillon, Chester Charles	LA 3	Normal
Dillon, Clare Elizabeth	HSAgr 1	Morgan Park
Dillon, Edward Leland	Agr 4	Urbana
Dittmer, Harry Leroy	BLA 2	Spokane, Wash.
Dixon, Ira Allen	LA 1	Kentland, Ind.
Dixon, Noah Matheny	BLA 3	· Springfield
Dixon, Wilbur James	RME 4	Clinton, N. Y.
Doane, Harry Allan	EE 2	Sycamore
Dodge, Douglas Raymond	A 1	Glen Ellyn
Doerr, Harold Francis	AE 1	Chicago
Doherty, Robert Kerr	A 1 SS	Morris
Doherty, Wilfred Moran	L 1	St. Charles
Dole, Ira Burton	ME 3	Manteno
Dole, Leslie Abijah	EE 1	Manteno
Dolezal, Edward Otto	AE 1	Cedar Rapids, Ia.
Dollahan, Herman Leander	EE 3 SS	Mt. Carmel
Donaldson, Elizabeth Frances	LA 1	Urbana
Donaldson, George Raymond	A 1	Vincennes, Ind.
Donner, Clay Mervin	ME 1	El Paso
Dooley, Frank Hobart	Agr 1	Downs
Dooley, Hubbard Errette	BLA 1	Rock Island
Dormitzer, Max Robert	RE 3	Chicago
Dorward, John Chester	LA 1	Turlock, Cal.
Dorsey, Otis Bond	EE 2	Perry
Douglas, Raymond Thomas	ME 2	Southampton, Mass.
Downend, Leslie Lemuel	Agr sp	Toulon
Downey, Retta	LA sp	Putnam
Downey, Thornton Edgar	CE 1	Wellington
Downs, Orrie Hagar	Agr 3	Urbana
Doyle, Edgar Dwight	REE 4	Blooming ton
Doyle, Joseph Henry	SS	Greenfield
Drake, Elmo Samuel	BLA 3	Stonington
Drake, Waldo Hiram	BLA 3	Stonington
Drew, Beatrice Lillian	LA 3	Chicago
Dreisbach, Shirley Morris	Agr 1	Circleville, O
Dressor, Alpheus Clyde	CE 1	Free port

Drew, Edgar Nathan	A 1	Martinton
Drummond, Ethel Reynold	LA 2	Chicago
Dudman, Virgil Ernest	SS	Paxton
Duerkop, Bertha Catherine	LA 3	Sutter
Duffy, John Clarence	Agr 1	Ottawa
Duke, Sidney Walter	AE 2	Prescott, Ark.
Dumond, Louis August	MSE 4	Maywood
Duncan, Aubrey Donald	LA $sp$	Indianapolis, Ind.
Duncan, Landale William	Agr 4	Princeton, Ind.
Dunham, Arthur Barrett	A 3	LaSalle
Dunham, Joseph Lyon	Agr 1	Chicago
Dunham, Nathaniel Kelly	LA 1	Pittsfield
Dunlap, Andrew Melvin	EE 3	Aledo
Dunlap, Ernest Albert	EE 4	Aledo
Dunlap, Robert Muratt	CE 4	Savoy
Dunn, Fred Davis	CE 2	Elmhurst
Dunn, Thomas	BLA 2	Moline
Dunsheath, Leroy Morrell	ME 4	Aurora
Dunton, Philip R	ME 2	Lebanon, Kan.
Dupuy, Margaret	LA 2	Chicago
Durland, Alice Harriet	LA 4 $SS$	LaGrange
Dutt, Mati Lal	ME 4	Calcutta, India
Duval, Elair Dilworth	RE 3	Omaha, Neb.
Dwyer, Leo Thomas	Agr 1	Fairfield
Dyer, Charles Furness	L $sp$	Hoopeston
Dyer, Mabel Arkebauer	LA 1	Ashland
Dyson, Mrs. Gertrude	SS	Champaign
Eade, Gladys	LA 1	Elizabeth
Eagle, Edward Louis	L 1	Streator
Eakin, Morton Samuel	ME 3	Elgin
Eames, Melville Joseph	Md 3	Blue Island
Earle, John Henry	Agr sp	Chicago
East, Anderson Redmond	LA 1	Anderson, Ind.
East, Warren Errett	EE 4	Clinton
Easterbrook, Harry David	E & 4	Saybrook
Easterbrooks, Robert Henry	RE 1	Almond, N. Y.
Easterly, Frank Arnold	Agr sp	Carbondale
Eaton, Edward Francis	Agr 2	Worden
Eaton, Helen Mary, A.B., 1907	SS	Tyler, Tex.
Eberlen, Clara	SS	Spring field
Eck, Josephine Antoinette	S 3	Urbana

	Eck, John William	S 3	Urbana
	Eckert, Hays	BLA 1	St. Louis, Mo.
	Eckhardt, Clara Mary	HSLA 2	Toledo, O.
	Eckhardt, Eva Mary	LA 2	· Illinois City
	Edler, George Christian	Agr 3	LaGrange
	Edmundson, Jessie Fay	S 1	Balbec, Ind.
	Edwards, Harry Pratt	CE 1	Fairmount, Minn.
	Edwards, Orville Logan	Md 2	Roodhouse
	Eells, Willard Clark	CE 3	Mazon
	Egan, Frank Thomas	Md 1	Cairo
	Egan, James Everett, A.B.,		
	(DePauw University), 1908	SS	Frankfort, Ind.
	Egolf, Harry Arthur	SS	Gridley
	Ehler, Otto	EE 2	Champaign
	Ehrhart, Raleigh John	EE 1	Arcola
	Eide, Randolph	LA 4 $SS$	Lee
	Eisenmayer, Arthur Wesley, Jr.	LA 4	Granite City
	Eiszner, Louise Mabelle	LA 2	Chicago
/	Ekblaw, Walter Elmer	S 4 SS	Rantoul
	Elam, Laurel Elmer	SS	Coffeen
	Eldred, Brace	SS	Urbana
	Elaswood, Shukey	CE 3	Brummana, Syria
	Elfstrom, Philip Raymond	CE 2	Batavia
	Elliott, Charles John	Agr 2	Tonica
	Elliott, Gertrude Louise	HSAgr 1	Tonica
	Ellis, Charles Lyman	S 4	Urbana
	Ellis, Orland I	Agr 2	Dwight
	Ellis, Tracy Wallace	ME 1	Seneca
	Ellison, Charles Courtney	L 2 SS	Alton
	Ellison, Edgar George	EE 3	Chicago
	Ellsberry, Lloyd Kirk	LA 4 SS	Mason City
	Elm, Evar Emanuel	ChE 3	Chicago
	Elsesser, Oscar Jacob	SS	Red Oak
Z	Emigh, Edith	$\stackrel{\sim}{L}A sp$	Knox, Ind.
	Emmerson, Ethel Mae	LA sp	Lincoln
	Engel, Meda	LA 1	Eureka
	VonEngelken, Marie Jeanette	LA 4	Polatka, Fla.
	Enger, Arthur Ludvig	MSE 3	Decorah, Ia.
	Enger, Thorbjorn Kjus	EE 4	Los Angeles, Cal.
	Engle, Joseph Whitman	AE 2	Rochester, N. Y.
	Eninger, Helen Marie	Mus 1	Cisco
			3,000

Enriquez, Ignacio Ceferino	Agr 4 SS	Chihuahua, Mexico
Ensign, Newton Edward, A. B.,	CE 4	Altamont
(Oxford Univ., England), 1908		
Eoff, Earl	L $sp$	Greenup
Epstein, Abraham Solomon	CE 4	Chicago
Epstein, Arthur Louis	CE 1	Blooming ton
Erbes, Bertha	HSAgr 2	Centralia
Erickson, Carl Elmer	Agr 2	Chicago
Erikson, Clifford Erick Joseph	CE 4	Aurora
Erlbacher, Harriet Clare	LA 3	Morris
Ermeling, Lewis Brown	ME 1	Chicago
Ernst, John Louis	AE 2	East St. Louis
Erskine, Alexander Watmough	CE 2	Oak Park
Erskine, Nellie Tanner	LA 2	Chicago
Erwin, Ira Austin	Agr sp	Saunemin
Erwin, Lewis	Agr sp	Bourbon, Ind.
Escobosa, Guillermo	Agr 1	Guadalajara, Mex.
Espinosa, Miguel Elenes	CE 1 SS	Topia, Mex.
Essick, Lyle Manly	CE 3	Clarion, Ia.
Essington, John Weston	LA 4	Streator
Essley, Earl Craig	Agr sp	New Boston
Estep, Josiah Morgan	A 3	Medford, Ore.
Etherton, Eldon	A 2 SS	Kansas City, Mo.
Etherton, James Everette	LA 3 SS	Carbondale
Euans, Kenneth Logan	SS	Hoboken, N. J.
Evans, Arthur Thompson	S 3	Wellington
Evans, Donald Grover	EE 1	Whitehall
Evans, Homer Whitmore	LA 2	Plainfield
Evans, John Edward	ME 2	Chicago
Evans, Walter Thomas	RE 2 .	Milwaukee, Wis.
Everhard, Raymond Marsh	Agr sp	Chicago
Ewing, Clarence Lee	Agr 1	Elvaston
Ewing, Henry Ellsworth, A. M., 1908	SS	Arcola
Ewing, Walker Forman	ME 2	Eureka
Eyestone, Minnie Minerva	Mus sp	Champaign
Eymann, Joe	ME 3	Gray mount
Faber, Clayton Brooke	ME 1	Paw Paw
Fager, Daniel Baldwin	SS	Vandalia
Fager, Daniel Frank	EE2 $SS$	Vandalia
Fahrnkopf, Emma Margaret	HSAgr 1	Ivesdale
Fahrnkopf, Harrison Fred Theodore	$\Delta gr$ 1	Ivesdale

Faires, Leland Stanford .	L 1	St. Jacob
Fairgrief, Ann Elva	SS	Champaign
Fairhall, Lawrence Turner	Ch3 SS	Danville
Faison, William Alexander	KE 4	Goldsboro, N. C.
*Fake, John Wilson	ME 1	Bonne Terre, Mo.
Fancher, Hazel Elizabeth	LA 1	Evanston
Fane, James Edward	L 1	Olean, N. Y.
Farnam, Earl Leroy	EE 1	Pawnee
Farnam, Eva May	LA 1	Pawnee
Farnum, William Howard	AE 2	Danville
Farr, Forrest Glenn	Agr 2	Chicago
Farrar, Harry Lewis	ME 3	Quincy
Farrell, Harry Herschel	A $sp$	Outlen
Fast, Byron Meridith	EE 4 SS	Princeville
Fatch, Rose Louise	HSAgr 1	Wilmette
Faulkner, Guy Dorr	CE 3	Hornell, N. Y.
Faulkner, James William	L $sp$	Joliet
Faurot, Judd Preston	EE 1	Danville
Faust, Per Alexander	ME 2	Rock Island
Fayart, Louis Eugene	BLA 2	Springfield
Fedde, Harry	EE 2	Peotone
Feagans, Ina	SS	Peoria
Fehrman, Claribel	S 1	Pekin
Feind, Frances Marguerite		
B. L. S., 1907	Mus sp	Chicago Heights
Fell, Jennie Edna	HSAgr $sp$	Champaign
Fellows, Abbie Mabel	SS	Hebron
Fellows, James Phillips	Agr 3	Kankakee
Felmley, Ruth Davida	LA 4	Normal
Felter, J Frank	Agr 4	Eureka
Fender, Charles W	S 3	Westfield
Fentz, Frank Christian	CE 1	Olney
Ferguson, Irwin Glenn	CE 4	Urbana
Ferguson, Louis Smith	ME 2	Annawan
Ferrell, Dent	EE 1	Carterville
Ferrer, Angel	Agr sp	Ponce, P. R.
Ferris, Charles Francis	Agr 4 SS	Danville
Ferris, Irene Mary	LA 4	Lawrenceburg, Ind.
Ferris, Phelps Fitch	Agr 1	Big Rapids, Mich.
Fetheroff, David	L 1	Camargo
Fick, Clarence William	EE 2	Winnfield, La.
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Fielder, Harold Sydney	RE 3	Chicago
Fifield, Gertrude	LA 1	Buda
Findley, Mary Morrow, B. S.,		
(Monmouth Coll.), 1882	SS	Monmouth
Findley, Thomas Jefferson	ME 1	Mattoon
Finkenbinder, Erwin Oliver	S 4 $SS$	Kent
Finkenbinder, Royal Ray	Agr sp	Kent
Finnie, Ruth	LA 1	Millington
Fischer, Charles Albert, A. B		
(Wheaton Coll.), 1905	SS	Wheaton
Fischer, Chester Owen	L 1	St. Louis, Mo.
Fischer, Clemens Joseph Fred	LA 1	Belleville
Fischer, Ferdinand August Paul	SS	Chicago
Fischer, Oscar Anton	SS	Chicago
Fishback, Hamilton Rodell	Md 2	Marshall
Fishback, William Murphy, A. B., 1909	SS	Marshall
Fisher, Benjamin Sidney	LA 1	Anderson, Ind
Fisher, Eva Josephine	LA 1	Champaign
Fisher, Forrest Adison	Agr 3	Greenup
Fisher, Guy Henry	Agr sp	Savoy
Fisher, Laura Estelle	LA sp	Kinmundy
Fisher, Louis Nebinger	CE 3	Decatur
Fisher, Ward Herbert	AE 4	Mt. Comfort, Ind.
Fisher, William Arthur	SS	Ogden
Fitzpatrick, Ulysses Simon	LA 4 SS	Orange, Cal.
Fitzwater, Daisy Ann Rebecca	L 1	Champaign
Fizzell, Robert Bruce	LA 4	Taylor ville
Flanders, Harvey Aiken	LA 4	Glencoe
Flanders, Harvey Harrison	SS	Glencoe
Flatt, Harrison Obiah	S 2	Carrolton
Flaugher, John Howard	CE 2	Aurora
Fleming, Georgia Elizabeth	HSAgr 2	Champaign
Fleming, Gertrude Wallace	LA 2	Champaign
Fleming, John Goodfellow	12	Champaign
Fleming, Rose Graham	LA 3	Champaign
Fletcher, Cassius Paul	SS	Ridgefarm
Fletcher, Charles Harrison	LA 1	Ridgefarm
Fletcher, Elizabeth Blair	LA 3	Bunker Hill
Florence, Edward	BLA sp	Aurora
Flowerree, Trennace	Agr 1	Easton
Foersterling, Frederick John	CE 3	Dwight
Total State of the	021 0	2 1911

Foley, John Warner	EE 3	Clinton
Foltz, Leroy Stewart	EE 3	Fowler
Forbes, Winifred	LA sp	Urbana
Ford, Bernice	S 3	Rockford
Ford, Carlotta Marks	HSS 3	Geneva
Foreman, Alvin Claude	Agr 3	Pitts field
Fornof, John Renchin	BLA 4 SS	Streator
Fornoff, Gustav George	EE 1	Chicago
Forrest, Ralph	ME 1	Daleville, Ind.
Fort, Lyman Marion	SS	Stronghurst
Foskett, William Elmer	AE 1	Chicago
Foster, Herbert Edward	AE 2	Attica, Ind.
Foster, Ruth Isabell	LA 2	Evanston
Foster, Thomas Grover	ME 2	Blue Island
Foulks, Mittie	SS	Sidney
Fouts, Earl Leslie	Cer 1	Centralia
Fox, Thomas Warren	ME 1	Mankota, Minn.
Frailey, Lester Eugene	LA 1	$\overline{Urbana}$
Francis, George Harlow	Agr 2	New Lenox
Francia, Julio	SS Pagsan	jan, Laguna, P. I.
Frank, William Leonard	LA 2	Carthage
Franken, Ewell Gerdes	Md 4	Chandlerville
Fraser, Viola Constancia	LA 3	Lead, S. Dak.
Fraser, William Harry	Agr sp	Leland
Frazee, John Delavan	LA 3	Chicago
Frazee, Louis Rheem	Agr sp	Chicago
Fredenhagen, Victor Byron	CE 4	Downers Grove
Frederick, Otto	L 3	Sullivan
Frederick, Roscoe Charles	L 3 SS	Sullivan
Freeland, Chesley Barber	Agr 3	Dalton City
Fremer, Otto William	AE 1	Chicago
Fridrichs, Augustus Henry	L 3	Waterloo
Frisbie, Leigh Allen	Agr 2	Rockford
Fritchey, Paul Bucher	S 2	Olney
Fritchey, Theodore Augustus, J	r. BLA 1	Olney
Fritze, Lucius Augustus	ChE 1	Peoria
Froehde, Frederick Charles	CE 3	Chicago
Froehlich, Milton Heckscher	CE 3	Chicago
Frost, James Grivy	Agr 1	Chicago
Fruin, Elizabeth	HSAgr 1	El Paso
Fry, Albert Stevens	CE 1	Urbana

Fry, Ernest Glathart	CE 1	Olney
Fry, Ellwood Ray	Agr 1	Rock Island
Fuchs, Albert George, Jr.	Agr sp	
Fuchs, Carl Ernest	LA sp Si	•
Fugard, John Reed	A 4	Newton, Ia.
Fujimura, Gikan	Agr 3	Iwate Ken, Japan
Fulks, Harry Catlin	BLA 1	Beardstown
Fullenwider, Wilfred Truman	Agr 3	Mechanicsburg
Fuller, Lettie Moylan		Ft. Leavenworth, Kan.
Fullerton, Charles Bushnell	L 2	Ottawa
Fulton, Mary Charlotte	SS	Pinckneyville
Funk, Irene Mason	LA 2	Kernan
Funkhouser, Frederick McClellen	A sp	Terre Haute, Ind.
Funston, Jesse Earl	Agr 1	Lovington
Furlong, Will Jeoffrey	Md 2	Rochelle
Furrow, Elmer Otis, A.B., 1909	SS	Potomac
Furukawa, Sozabu	A 1	Saga, Japan
Gaddis, Henry Elisha	BLA 1	Winchester, Ind.
Gaddis, Porter Lemuel, A.B.,		" " " Thomason, I man
(Greenville Coll.), 1908	S 1 SS	Comstock, Nebr.
Gage, William John, Jr.	AE 1	Champaign
Gaines, Walter Lee, B.S., 1908	88	Crete
Galeener, William Kenneth	Agr 3	Vienna
Galster, Augusta Emilia	LA 1	Tower Hill
Gambach, Jacob, A. B., 1906	SS	Hecker
Game, Josephine Louise	LA 1 S	S Chatsworth
Gangulee, Nagendra Nath		Barisal, Bengal, India
Garabedian, Garabed Arshag Zacar	v	Constantinople, Turkey
Garber, Ralph John	Agr 2	Gibson City
Gardner, James Harlan	Agr 2	Tiskilwa
Gardner, James Lewis	Agr 3	Aurora
Garibaldi, Americo Thomas	BLA 1	Chicago
Garibaldi, Laurence Andrew	BLA 3	Chicago
Garland, Frank Dean	LA 3	Champaign
Garnett, Harriet Elizabeth	HSLa 3	Plymouth
Garrett, Frank William	Agr 3	Momence
Garrett, James Franklin	ChE 1	Kinmundy
Garrett, Louise Wallace	LA 1	Champaign
Garrison, Harmon Earl	Agr $sp$	Epworth
Garver, Earl	Agr 3	Rockford
Garza, Juan Ignacio	EE 4	Saltillo, Mex.

Gaskill, Daniel Webster	S $sp$	Kell
Gaster, Rexford Livingston	S 1	Prince ville
Gaston, Omar	AE 3	Kell
Gates, Carleton Willard	EE 2	Elgin
Gates, Frank Caleb	S 4	Chicago
Gates, Orus Ethan	RE 4	Tuscola
Gates, Ralph Pillsbury	ChE 2	Chicago
Gauger, Paul Charles	AE 1	St. Paul, Minn.
Gault, Matthew Benjamin	$Agr\ sp$	Houston, Fla.
Gay, Amelia Louise	LA 2	Rockport
Gay, Strawn Aldrich	A 1	Ottawa
Geason, Mark Harold	EE 1	Washington
Geddes, Allen George	SS	Fountain Green
Gedney, Clarence Smith	ME 2	Chicago
Gee, Claude Earl	EE 1	Lawrence, Kan.
Gehrig, Arthur Gustave	CE 1 SS	New Douglas
Gehring, Herbert William	A 1	Las Vegas, N. Mex.
Geist, Harry Forest	EE 2	Aurora
Gentle, George Edward	Agr 2	Farmington
Gentry, William Summer, Jr.	AE 2 SS	Frankfort, Ind.
Genung, Ivaloo	HSAgr 3	Rantoul
Geraghty, Richard Stanley	BLA 1	Berwyn
Gerard, Russell S	Agr $sp$	Chambersburg
Gere, Amy Ruth	HSAgr sp	Urbana
Gere, Hazel Harriet	HSAgr 3	Urbana
Gere, Rollin Chester	Agr 1	Urbana
Gerlach, Miriam	LA 3	Doniphan, Mo.
Gernert, Walter, M.S., 1909	SS	McPherson, Kan.
Gershenzwit, Joseph	Agr sp	New York, N. Y.
Gest, Ben	AE 3	Rock Island
Getman, Roy Lyle	CE 1	Harvard.
Gholson, Arthur	SS	Eldorado
Gibbons, Earl Espey	ME 2 SS	Hoopeston
Gibbs, Fred	Ch 3	Lincoln
Gibbs, Paul Hedges	MSE 1	Westfield, Mass.
Giddings, Arthur Solomon	EE 2	Sterling
Gilbert, Charles Henry	L $sp$ $SS$	Armstrong
Gilbert, Edwin Harland	EE 4	El Paso
Gilbert, Irving Brown	RE $sp$	Chicago
Gill, George Thallon	LA 1	Evanston
Gilmore, Claude Bertrand	SS	Phillips, Neb.
		2.,

Gilm	ore, Winfield Corwin	L 1	Gibson City
	ard, Charles Edward	CE 3	Newton
	ux, Elroy Arthur	EE 1	Momence
	on, Delbert George	BLA 2	Dixon
	nger, Clement Orva, B.S.,	DDII »	
	Oklahoma Univ.), 1908	ME 4 SI	S Champaign
•	ns, Albert Lilly	CE 1	Aurora
	son, Guy Allen	BLA 1	Edgewood
	, Harry Franklin	ME 2	Chicago
	ion, Cyrus Washington	ME 1	St. Louis, Mo.
	gow, Grace	HSAgr 2	Tennessee
	gow, Robert Douglas, A.B., 1908	SS	Tennessee
	gow, Ruth	HSAgr 2	Tennessee
	son, Nellie Magruder	LA 3	Champaign
	n, Arthur Barlow	CE 2	Quincy
	n, Eleanor Mae, A.B., 1907	SS	Champaign
	n, Grace	Mus sp	Champaign
	n, Laurence Arthur	L 1	Champaign
	z, Edward Anton	ChE 1	Chicago
	, Everett E	Agr 2	Rochester, Ind.
	er, Leonard Wood	LA 3	Urbana
Gloy	d, Galen Van Rensselaer	A 3 SS	Macomb
Gobe	en, Pearl Hazellette	HSAgr 2	Danville
Goch	naur, Orlando Merrill	SS	Free port
∨ Goeb	el, Julius Ludwig	LA 2	Urbana
√ Goeb	el, Louise Katheryn	LA 2	Urbana
∨ Goeb	el, Marie Christine	LA 3	Urbana
Goff,	, Cicely Sarah	LA 4	Champaign
Goff,	Mary Emma, A.B., 1902	Lb 4	Victor, Miss.
Gohr	n, Lloyd Elias	LA 2	Rochester, Ind.
Gold	berg, Rose Alice	Mus sp	Chicago
Gold	merstein, Leon	EE 1	St. Petersburg, Russia
Gold	stein, Theresa	SS	Chicago
Gonn	nerman, Arthur William	EE 2 SS	Dixon
Gonz	zalez, Alfredo Lorenzo	EE 2 SS	
		San F	Pedro, Coahuila, Mex.
Good	l, Bertie	Mus sp	Urbana
	l, Nelson Briggs	L $sp$	Neoga
	lall, Joseph Winfield	SS	Peru, Ind.
	lenough, Arthur Sherman	AD 3	Urbana
Good	ling, Charles	LS	Champaign

Goodman, Byne Frances	LA 3	Champaign
Goodman, Charles Francis	Agr 1	DeLand
Goodman, Ezra	EE $sp$	Zitomir, Russia
Goodspeed, Nathan Lee	BLA 4	Joliet
Goodyear, Henry Marks	Md 1	Morton
Gordon, Charles	RE 2	Chicago
Gordon, Fred Guyon	MSE 2	Vandalia
Gordon, Marie Alma	HSLA 1	Urbana
Gordon, Willis Gaylord	EE 2	Towanda, Pa.
Gordon, Willis Owen	Ch 3	Paris
Gorham, Edwards Doremus	S 3	Champaign
Gorham, Margaret Dresser	LA sp	Champaign
Gormley, James Reilly	CE 1	Chicago
Goss, Mary Lucetta	Mus 1	Champaign
Goss, Maurice Gregory	ChE 1	Dayton, O.
Gossett, John Eubanks	BLA 2	Urbana
Gould, Irene Ethel	Mus 1	Wilmette
Gourley, Joseph Edward	LA 1	Paxton
Gourley, Louis Hill	LA 2	Springfield
Grabbe, Florence Harriet	HSAgr 2	Urbana
Graham, Charles Wallace	SS	Springfielå
Graham, Lottie, Ph.B.,		2 0,
(Dennison Univ.), 1908	SS	Paris
Graham, Paul John	LA 3	Aledo
Grainger, Charles Warren	CE 3	Chicago
Grannis, Frank Cravens	Agr 4 SS	Urbana
Grantham, George Manners	Agr 2 1	New Richmond, Ind.
Graves, Lester Herbert	EE 2	Wilmette
Gray, Anna Lois	LbLA 1	Gosport, Ind.
Gray, Carl Raymond, Jr.	BLA 3	St. Louis, Mo.
Gray, Frank Brownfield	A 3	St. Charles
Gray, Fred Jay	EE 3	Ottawa
Gray, Phillip Frank	BLA 1	Maywood
Green, Bertha Agnes	Mus 1	Ivesdale
Green, Donald Wilder	BLA 1	Chicago
Green, Howard Ruggles	CE 2	Amboy
Green, Joseph Albert	Agr 1	Plano
Green, Joseph Peacock	Agr 2	Chicago
Green, Julia Emorette	A 1	Kansas City, Mo.
Green, Lonsdale, Jr.	ME 2	Chicago
Greene, Arthur Ritchie	Agr sp	Lisle

	Gregg, Richard Seaton	AE 1	Peoria
	Gregg, Samuel Elza	ME 2	Rantoul
	Gregg, Walter Norman	BLA 3	Fairbury
	Gregory, Lewis Throckmorton	BLA 1	Chicago
	Gresham, Nine Vivien	LA 4	Champaign
	Gridley, Elmer Barden	EE 1	Virginia
	Grieser, Harry Arthur	Agr 2	Quincy
	Griewank, Arthur Carl	CE 4	Michigan City, Ind.
	Griffin, Dwight	ME 4 SS	Clinton
	Griffith, Logan Glassgow	L 2	Pana
	Griffith, Rolland Wheelock	LA 4 L 1	Granite City
~	Griffith, Sherald Edward	AD 1	Milford
	Griffiths, Walter Milo	ME 4	Pontoosuc
	Griftner, James Howard	ChE 1	Champaign
	Grigsby, Marion William	CE 3 SS	Peoria
	Grigsby, Owen Eugene	EE 3	Peoria
	Grimmer, Edwin William	SS	St. Louis, Mo.
	Gross, Meda Floy	LA 2	Atwood
	Grossberg, Arthur Sariah	ME 4	Chicago
	Grossman, Andrew Eugene	L $sp$	Chicago
	Grotts, Fred	SS	Raymond
	Grotts, Walter Franklin	SS	Irving
	Grove, Chester Hayward	EE 3	Ottawa
	Grove, Pearl Forest	S $sp$	Urbana
	Grove, Sanford Lackey	S 4	Cerro Gordo
	Groves, Donald Karel	ChE 2	Chicago
	Groves, Evangeline Eunice	LA 2	Champaign
	Groves, Mabel	SS	Sidney
	Groves, Pauline Trabue	LA 3	Champaign
	Guernsey, Charles Owens	ME 1	Vincennes, Ind.
/	Guild, Mrs. Lois Greene	SS	Urbana
	Gullett, Noah	L 3	Elizabethtown
	Gulley, Laurence Richard	ME 4	Urbana
	Gum, Percy Eli	L 3	Chicago
	Gumaer, Percy Wilcox	EE 3	Buffalo, N. Y.
,	Gunderson, Alfred Joseph	Agr 3	Chicago
	Gustafson, Charles LeRoy	A 2	Boone, Ia.
	Gustin, Alpheus	L 3 SS	Cave-in-Rock
	Gutting, Hilda Margaret	LA 1	Ottawa
	Gutting, Lee Arthur	EE 3	Ottawa
/	Gwinn, Alta, A.B., 1907	SS	Urbana

Gwinn, Avis	LA 2	Urbana
Gwinn, Edith	HSLA 1	Urbana
Gwinn, Ethel	LA 3	Urbana
Haan, Mary Anna	LA 1	Aurora
Habbe, Richard Hartloff	S 2	Indianapolis, Ind.
Habrylwicz, Valentine Bernard	EE 2	Chicago
Hadley, Frank	CE 3	Hoffman
Haeffner, John George	CE 3	Oak Park
Hagedorn, Frederick Arthur	ME 3	Rock Island
Hagener, Arthur	A 1	Beardstown
Haggard, Ada Olive	Lb 4	York, Neb.
Haggard, Goldie Fern	LA $sp$	York, Neb.
Hahne, Albert, Jr.	Cer 2	Chicago
Haig, Gwyn Forbes	SS	Leroy
Haines, Harlan Evan	BLA 1	Bushnell
Hake, Joseph William, A.B., 1909	SS	Urbana
Hale, Roy Joseph	Agr 1	Taylor ville
Hall, Albert Leander	L 1	Waukegan
Hall, Chester Irving	RE 4	Chicago
Hall, Lawrence Melville	EE 1	Kewanee
Hallett, Margaret Hope	S 4	Springfield
Halstead, Elizabeth Mary	SS	Carbondale
Hamilton, Edwin S	Md 3	Kankakee
Hamilton, John Robert	Agr sp	Bardolph
Hammer, Raymond Franklin	Ch 4	Champaign
Hammill, Chester Armstrong	ME 1	Maywood
Hammers, James Robert	Agr 1	El Paso
Hammond, Marie Alice	Lb 4 ·	Chicago
Hampton, Amy Irwin	Mus 2	Muscatine, Ia.
Hance, James Mordecai	BLA 1	Newman
Hancock, George Benjamin	CE 1	Chicago
Handke, Paul Albert	Cer 1	Evanston
Hanes, Murray Emanuel	A 1	Springfield
Hanes, William Rambo	RE 4 $SS$	Urbana
Hanford, Alfred Chester	LA 2	Carbondale
Hankins, Orville Gerber	AE 1	Decatur
Hanley, James Thomas	CE 4	East St. Louis
Hanley, Thomas Francis, Jr.	ME 1	Chicago
Hanley, William Andrew	SS	Muncie, Ind.
Hanna, John Paul	A 2	Aurora
Hannah, Harry Ingalls	LA 1	Fithian

Hansel, John Washington	CE 2	Omaha, Neb.
Hansen, Merritt Rasmus	EE 1	Chicago
Hansen, Roy	Agr 1	Rock Island
Hansen, Viggo	CE 3	Morris
Hanson, Claude LeRoy	CE 2	Batavia
Hanson, Dayton William	Agr sp	Hayes
Happer, Josephine Alice	HSS 2	Urbana
Hardinger, Ralph Wilbur	Md 1	Gays
Hardman, Frank Finley	BLA 2	Renesselaer, Ind.
Hare, Faye Charles	LA 1	Gilman
Hargitt, George Harold	EE 1	Aurora, Ind.
Harkness, Columbus Loren	ME 4	Adams
Harmon, Albert Mozart	EE 1	Chicago
Harmon, Murvin Terry	Agr 3	Effingham
Harms, John Ernest	ChE 1	Dalton
Harms, Louis Arthur Peter	S 3 SS	Dolton Station
Harnack, George A	CE 2	Champaign
Harper, Mrs. Ethel Brunker	SS	Terre Haute, Ind.
Harper, Fred Clayton	SS	Terre Haute, Ind.
Harper, Julia Alberta	LA 2	Urbana
Harper, Raymond Samuel	CE 2	Chicago
Harpham, Ralph Barwick	Agr 1	Havana
Harris, Charles	AE 4	Moweaqua
Harris, Earl Warren	A 1	Chicago
Harris, John Woodman	L 3	Champaign
Harris, Leila Dorothy	LA 3	Champaign
Harris, Roscoe Conkling	ME 1	Champaign
Harrison, Benjamin Harrison	ChE 4	Champaign
Harrison, Bernice	LA 2	Champaign
Harrison, Donald Frederic	ME 4	Urbana
Harrison, Effie Bernice	Mus sp	Champaign
Harrison, Florence, B.S., 1908	SS	Champaign
Harrison, Grover Cleveland	Agr $sp$	Cuba
Harriss, Judson Emery	L $sp$	DuQuoin
Harshbarger, Ernest Mason	LA 1	Ivesdale
Harshman, Wayne	EE 3	Griggsville
Hart, Hazel Charlotte	LA 2	Urbana
Hart, Jabez Waterman	ME 1 SS	Urbana
Hart, William Edward	Agr 3	Brighton
Hartsock, Nellie Mae	HSLA 1	Clinton
Harvey, James Ernest	Md 1	Rushville

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Harwood, Arley Weston	L 1	Bradford
Harwood, Frank David	SS	Flora
Harwood, Herrick Hopkins	L sp	Carrollton
Hasberg, William Maer	ME 4 SS	Chicago
Hash, Susan Alice	LA 2	Boswell, Ind.
Haskell, Walter Millard	ME 4	Sterling
Hasselquist, Egbert Joshua	EE 2	Rock Island
Hassenstein, Carl Frederic	AE 4	Chicago
Hatch, Edith Irene	S 3	Richmond
Hatch, Ralph Snyder	EE 3	Elgin
Hatten, Frank Wyatt	RE 4 SS	Delavan
Hattrem, Warner Madison	ChE 4 SS	Marseilles
Haussermann, Lillian Margaret	LA 1	Evansville, Ind.
Hawk, Mrs. Philip Bovier	Mus~sp	Urbana
Hawkins, Ralph Roscoe	ME 1	Palestine
Hawkins, Walter Amos	Agr sp	Owaneco
Hawley, Alfred DeWitt	AE 1	Pittsford, N. Y.
Hawley, John Baldwin	A 2	Trinidad, Col.
Hay, Clair Edwards	* Agr 1	Ottawa
Hay, Henry Collins	LA 1	Urbana
Hayden, Mervin Mason	CE 1	Chicago Heights
Hayes, Rollin Moulton	L 3	Rankin
Haynes, Jerome King	ChE 2	Auburn, N. Y.
Hays, Don Llewelyn	$EE \ \mathcal{Z}$	Billings, Mont.
Hays, Harry Norman	Agr 2	Bement
Hays, Nina May	SS	Gordon, Neb
Hazen, Lewis Conn	Agr 1	Galesburg
Healy, Charles Henry	Agr 4	Rochelle
Healy, Emmet John	CE 1	Chicago
Heater, Elmer Franklin	EE 3	Champaign
Heath, Nathaniel Pinckard	EE 1	Evanston
Hecht, August Frank	$Agr\ sp$	Wellston, Mo.
Hecht, Harold	LA 1	Charles City, Ia.
Hecketsweiler, Roy Thomas	SS	Rockefeller
Hedges, Guy Otis	LA sp SS	Colfax
Hedges, Lee Beethoven	ChE 1	Colfax
Hedman, Herbert Ragnwald	CE 2	Chicago
Hegnauer, Robert Lucius	Agr 1	Appleton City, Mo.
Heidhues, Harry Eberhard	Agr sp	Chicago
Heidkamp, Emil Nicholas	CE 2	Chicago
Heilman, Harold Chester	ME 3	Philadelphia, Pa.

Heimbeck, Walter Carl	AE 4	Rock Island
Heim, Nelson George	EE 2	Blue Island
Heislar, Clarence Shuck	ME 4	Urbana
Helm, Lloyd Lannes	LA 2	Metropolis
Helmle, Henry Richardson	A 3	Springfield
Helms, Eugene Henry	Agr sp	Belleville
Hemsen, Christian Nicholas	L 2 $SS$	Mansfield
Hemsing, Mabelle Glena	LA 1	Stoughton, Wis.
Henderson, Frank Howard	Agr sp	Leland
Henderson, Fred	Agr 1	Monmouth
Henderson, William Thomas	L 2	Georgetown
Hendrickson, Harold Lee	LA 1	Rochester, Ind.
Henes, Harry William, M.E.,		· ·
(Columbia Univ.), 1909	CE 1	New York, N. Y.
Henke, Frank Xavier	SS	Chicago
Henley, Henry Benjamin	Agr 1	Carthage, Ind.
Henley, Robert Morrow	Agr 1	Carthage, Ind.
Henn, Otho Manson	BLA 2 SS	Brocton
Henricks, Harold Hopkins	ME 1	Chicago
Henry, Cecil Douglas	EE 3	Urbana
Hepburn, Thomas McDonald	CE 1	Genoa
Herb, Harry Blaine	EE 1	Alton
Herbert, Harold Harvey	BLA 2	Freeport
Herbolsheimer, Albert John	Agr sp	Princeton
Herdman, Margaret May	Lb 4	Winnetka
Hermann, Edgar Paul	ChE 1	Sterling
Herndon, Obed Lewis	LA 4	Spring field
Herndon, Richard Fleetwood	Md 3	Spring field
Herrcke, Ernest Arthur	ME 3	LaSalle
Herrick, G Wirt	LA 3	Farmer City
Herrick, Grace Emma	LbLA 1	Rock ford
Herrick, Wayne Dayre	Agr 1	Farmer City
Hersman, Bessie Edna	HSLA 2	Hersman
Herzer, Margaretha	SS	Spring field
Heseltine, Eleanor De Muzeen	LA 3	Chicago
Hess, Abigail Maria	S 4	Hinsdale
Hess, Carl Valentine	A 1	Thayer, Kan.
Heuman, Alma Bertha Caroline	LA 4	Elgin
Hewes, Charles Kay	ChE 2	Quincy
Hewitt, Clarence Thurman	BLA 2	Taylor ville
Hewitt, James Herbert	CE 2	Lebanon

Hewitt, Mary Durkes	LA 1	Franklin Grove
Heyer, Walter Earl	Agr sp	Fisher
Hickman, Lucie Pearl	LA 4	Hoopeston
Hicks, William Ellsworth	BLA 3	Hardinville
Hieronymus, Howard Earl	Agr 1	Armington
Higgins, Max Brown	ME 2	Joilet
Higgins, Thomas Jefferson	SS	Aurora
Highfill, Inez Feltz	LA 4 SS	Urbana
Hight, Eugene Stuart	EE 4	Delavan
Hilfer, Fred Edward	A 1	Chicago
Hilgard, Benjamin Waldo	BLA 1	Belleville
Hill, Charles Nelson	BLA 1	Cave-in-Rock
Hill, Chauncey Stevens	SS	Champaign
Hill, Fanny Wilder	LA 4	Champaign
Hill, Harold Vater	AE 3 SS	Indianapolis, Ind.
Hill, Minnie Olive	LA 2	Keokuk, Ia.
Hill, Nathan Richard	CE 4	Champaign
Hill, Nehemiah William	ChE 4	Urbana
Hill, William Ely	LA $sp$	LaGrange
Hiller, William Gottlieb	ME 4	Peoria
Hillman, Arthur	CE 1	Chicago
Hillman, Eugene Lyon	BLA 1	Marshall
Hills, Proctor George	Agr 2	Lombard
Hines, Kate	LA 1	Champaign
Hines, Milo Donald	Agr sp	LaFayette
Hinchliff, George Edward	BLA 2	Chicago
Hinkle, Homer Marion	SS	Dongola
Hinman, Earl Herbert	Agr 1	Cambridge
Hinrich~en, Fred Albert	BLA 1	Davenport, Ia.
Hinshaw, Joseph Howard	LA 1	Harrisburg
Hippard, George Girard	L $sp$	Springfield
Hirschl, Jackson Edward	A 1	Davenport, Ia.
Hiseroot, William Webb	ME 2	Urbana
Hislop, Tom Foru	Agr 3	Chicago
Hitch, Doris Nelson	L 1	Champaign
Ho, Chung Ming	Agr 1	Canton, China
Hoagland, Henry Elmer	LA 4 SS	Prairie City
Hobart, Clyde Monroe	LA 1	Urbana
Hoberg, Oscar William	L 3	Peru
Hobier, Atherton Wells	BLA 3	Batavia
Hobson, Norman Thomas	A 1	Harvey
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Hodge, Emeric William	Agr sp	Kewanee
Hodgson, Jonathan Huntoon Samuels	ME 4	Moline
Hoehn, Beatrice Eva	SS	Carlinville
Hoen, Inger	LA 1	Edgerton, Wis.
Hoeppner, Edmund Gottlieb	AL 2	Eau Claire, Wis.
Hoff, John LeRoy	SS	Ottawa
Hogan, Gertrude May	SS	Pana
Hohmann, Howard Christopher	EE 2	Blue Island
Holch, Arthur Everett	LA 1	Gilman
Holch, Ralph Edgar	ME 4	Gilman
Holdridge, Harold Ashton	Agr sp	Saunemin
Holland, James Andrew	CE 2	Rockford
Holland, Leila	HSAgr 4	Pontiac
Holley, Charles Elmer	SS	Franklin Grove
Hollingsworth, Jay Fraser	AE 2	Sullivan
Hollister, Ethel Annetta	LA 4 SS	Champaign
Hollmann, Edward Emil	Ch 2	St. Louis, Mo.
Holmer, Emma, A.B., (Know		
Coll.), 1908	SS	Alexis
Holmes, Willard Coit	MSE 2	Kansas City, Mo.
Holt, Emery Ford	EE 1	Shawn eetown
Holton, Caryl Ames	CE 1	Sidell
Homs, Jose Maria	ME 4	Barcelona, Spain
Homberger, Lynda Bertha	LA 1	Sauk City, Ia.
Honderich, Francis Irvin	EE 1	Marshall
Honeywell, Helen	LA 3	Hoopeston
Hong, Mun Sun	ME 1	Chicago
Hood, Joseph Douglas	S 4	Chicago
Hooppaw, Bessie	ArtLA $sp$	Champaign
Hoover, Jacob Floyd Nelson	Agr sp	Harlem
Hopkins, Deane	AE 2	Racine, Wis.
Hopkins, Harry Ward	L 1 SS	Champaign
Hopkins, Herbert Ziegler	Agr 2	St. Louis, Mo.
Hopkins, Mary Morton	LA 3	Champaign
Hopkins, Robert Edward	Agr 4	Delavan
Horn, Benjamin Albert	A 4	Chicago
Horning, Russell Dawn	EE 1	$^{\circ}Palestine$
Hornor, Nellie Nancy	S 2	Danville
Hornung, Martin Robert	ChE 1	Chicago
Horr, Leonard Woods	ME 3	LaGrange
Horrell, Charles Rush	EE 1	Macomb

Horst, Anton Edward	ME 3	Rock Island
Horst, Henry Theodore	AE $sp$	Rock Island
Hoskins, Carrie Elsie	HSAgr 1	Norris City
Hoskins, Daniel Tilden, Jr.	BLA 4	Las Vegas, N. M.
Hoskins, Edna	HSAgr 3	LaGrange
Hoskins, Mildred	LA $sp$	Norris City
Hostetter, Ross Barber	$Agr~ \mathscr{Z}$	Mt. Carroll
Hough, Helen Elizabeth	LA 2	Champaign
Hoult, Bessie Busey	HSLA 2	Chrisman
Hoult, Geneva Frances	LA 2	Chrisman
Howard, George William	S 1	Lena
Howard, Russell Samuel	Ch 4	Ottawa
Howe, Earl William	LA 2	Miles City, Mont.
Howe, Edward Gardiner, Jr.	Agr 1	Chicago
Howe, Harvey William	EE 4	Chicago
Howe, Roy William	Agr 1	Wymore, Neb.
Howes, Herbert Edward	Agr 1	Chicago
Howes, Lois Mary	LA 1	Chicago
Hoy, Harry Russell	LA 1	Freeport
Hoy, Lucy Frances	LA 3 SS	Urbana
Hribal, Edward A.	EE 1	Chicago
Hsu, Chu Shi	LA $sp$	Shantung, China
Hsu, Tsung Han	A sp	Shantung, China
Hubbart, Gurth Searle	L 3 SS	Champaign
Huber, Frank	A 1	Peoria
Huber, Harold Everett	L 1	Champaign
Huber, Joseph Earl	CE 2	Champaign
Hudelson, Charles LeRoy	EE . 4	Benton
Hudelson, Robert R.	Agr 3	Chambersburg
Hudson, Stanhope	BLA 1	Chicago
Huff, James Orton	LA 3	Frederick
Huff, Roger Grant	L 2	Sullivan
Hughes, Alexander Gibbon	Agr 4	Gurnee
Hughes, Cecil A	Agr 1	Gays
Hughes, John Harvey	Agr 1	Gessie, Ind.
Hughes, Walter John	ME 4 SS	Yates City
Hulburd, Annabel Amanda		Brasher Falls, N. Y.
Hull, Anna Leo	LA 4 SS	Martinsville
Hull, Clarence Thomas	EE 1	Ft. Madison, Ia.
Hull, Frederick Davis	EE 2	Morris
Hull, Homer Boys	Agr 2	Saunemin
mun, momer boys	Ligi N	·

Hull, Walker Francis	LA 4 L 2 A	
Hull, William Henry	ME~2	Moline
Hume, Stanley Harrison	Agr sp	Apple River
Humphrey, Herbert Kay	EE 3	Chicago
Hungate, Harold Grandison	EE 1	LaHarpe
Hunt, Ada Eleanor	HSS 3	Ridott
Hunt, Helen Eva	LA 1	Ashton
Hunter, Alfred Hughllyn	SS	Mendon
Hunter, Charles Madison	⊿gr 1	Abingdon
Hunter, Clyde Holland	BLA 1	Carterville
Hunter, David, Jr.	Agr 3	Rockford
Hunter, James Albert	Agr 1	Peoria
Hunter, Russell Field	S 2	Chillicothe
Huntington, Carroll Sowles	ME 3	Onawa, Ia.
Huntoon, Geneva	LA 2 G	Frand Junction, Col.
Hurford, Frances	HSLA 2	Glencoe
Hussey, Donald Columbus	BLA 1	Franklin Grove
Huston, Joseph Alfred	SS	Gibson City
Huston, Perry	L 1	Paris
Hutchings, Paul Ashley	CE 1	Champaign
Hutchins, William Adelbert	Md 2	Freeport
Hutchinson, Mary Anne	S 3	Capron
Huxmann, Richard F	CE 2 SS	Chicago
Hyde, Hallie Walker	HSS 4	Brookins, S. Dak.
Hyde, Rosa Kate	Mus sp	Champaign
Hyde, Wilbur Gilpin	A 4	Champaign
Ice, Noel Carlysle	Md 1	Gifford
Ide, Arthur William	CE 1	Mineral
Iida, Tadashi	EE 1	Tokyo, Japan
Ingalls, Horace Ballou	Agr 1	Urbana
Ingalls, Ross Darwin	EE 2	Brownville, N. Y.
Ingersoll, Harold Bennett	CE 2	Chicago
Ingold, Vivian Johnson	AE 1	Appleton, Wis
Ingram, Harold Stuart	ChE 4	Chicago
Ingram, Henry Jerome	L 1	Wyoming
Ingram, William Verity	AE 2	Chicago
Imlay, Hugh Anthony	Agr 3 SS	Zanesville, O.
Innis, Orma Archer	LA 4	Rushville, Ind.
Ireland, Grant Robbins	LA 4 L 1	Washburn
Irwin, Jay Lawrence	CE 3 SS	Ottawa
Isaacson, Huldah Christine	SS SS	St. Charles
tsaaceon, Huidan Christine	NN N	Di. Charles

Israel, Arthur Lyle	ChE 2	Chicago
Ivens, Aaron Ralph	BLA 1	Decatur
Jackson, Eva Jane	HSLA 2	Champaign
Jackson, Morris William	Agr sp	Toulon
Jackson, Ralph Nathaniel	EE 3	Aurora
Jackett, Clinton Lester	LA 1	Woodstock
Jacob, Ernest Otto, B.S., 1907	LA 4	Chicago
Jacobsen, Charles Henry	ME 4	Urbana
Jacobson, John David	Ch sp	Chicago
Jacobson, Seymour Alexander	CE 3	Chicago
Jahn, Harry Frank	MSE 2	Chicago
James, Alfred Edwin	BLA $sp$	Terre Haute, Ind.
James, Helen Dickson	LA 4 SS	Urbana
James, Louise Ann	LA 3	Ambou
Jamison Martha Gertrude	Lb 4 SS	Seaton
Jamison, Michal Velma	LA 1	Seaton
Janda, James Frank	ME 4	Belci, Bohemia
Jasper, Edward Miron	EE~3	Newton
Jasper, Thomas McLean	CE 4 Hell	ligan, Bodmin, Eng.
Jeffrey, Eva Rebecca	Mus 1	Urbana
Jehle, Ferdinand	ME 4	Highland
Jenner, Louise May	HSAgr 2	Evansville, Ind.
Jensen, Anker Christian	LA 1	Ashkum
Jervis, Paul Frederick	CE 4	Champaign
Jeter, George Guy	EE 4	Paris
Jett, Rosley Wesley	Agr sp	Hillsboro
Jewett, Charles Gregory	CE 1	Chicago
Jewett, Roy Ernest	EE 2	Plano
Jinguji, Genjiro	$EE \ 2 \ SS$	Coshi, Japan
Johnson, Ananias Parnell	SS	Urbana
Johnson, Clarence Scott	ME 2	Clinton, Ind.
Johnson, Edna Louise	SS	Brim field
Johnson, Elmer Leroy	EE 3	Aurora
Johnson, Esley Ebenezer	BLA 4	Moline
Johnson, Gilbert Davison	RE 1	Glencoe
Johnson, Grant	L 3	Tower Hill
Johnson, Harvey Judd	EE~2	Sycamore
Johnson, James Mount	CE 3	Vincennes, Ind.
Johnson, Lawrence Theodore	A 1	Chicago
Johnson, Louis Samuel	Agr 1	Rossville
Johnson, Mabel	Mus $sp$	Genoa

Johnson, Minnie	S $sp$	Sandwich
Johnson, Robert Ulysses	AE sp	Chicago
Johnson, Robert Emery	Agr sp	Chicago
Johnson, Samuel Abraham	SS	Albany, Ga.
Johnson, William Bluford	L 2	McLeansboro
Johnston, Fannie Beatrice	Mus sp	Sidney
Johnston, Florence Ruby	HSLA 1	Champaign
Johnston, Helen Josephine	SS	Clarence
Johnston, Paul Evangel	ChE 3	Jackson ville
Johnston, Thomas William	EE~2	Normal
Johnstone, Andrew John	Agr 1	Blooming ton
Johnstone, George Rufus	S 1	Galva
Joice, Earl Henry	Agr 1	Chicago
Jolly, Frank Alexander	CE 1	Champaign
Jolly, Wesley Parvin	LA 1 SS	Lake, Ind.
Jones, Alba Allen	L 3 $SS$	Decatur
Jones, Bertha Marie	LA 3	Champaign
Jones, Charles Barnes	Agr 1	Aurora
Jones, Charles Eugene	L 1	Robinson
Jones, Charles Jay	Agr 4	Bloomfield
Jones, Edward Walter	EE3	Ravinia
Jones, Elmer Nelson	Ch sp	S. Zanesville, O.
Jones, Herbert Milton	ME 2	Chicago
Jones, Jesse Karl	CE 2	Dewey
Jones, Lloyd George	Agr 4	Joliet
Jones, Margaret M.	SS	Champaign
Jones, Opal Rogers	LA 4	Urbana
Jones, Raymond Harrison	A 4	St. Joseph
Jones, Robert Taylor	A 4	Vincennes, Ind.
Jones, Roy Augustus	Agr sp	Greenview
Jones, Rupert Forrest	EE 1	Champaign
Jones, Walter Raymond	Md 4	Redmon
Jordan, Arthur Irving	Ch 4 SS	Chicago
Jordan, Bion Stanley, Jr.	BLA 2	Framingham, Mass.
Jordan, Helen Margaret	HSAgr 3	St. Joseph, Mich.
Jordan, Ralph	Agr sp	Fairland
Jorgenson, Frederick Andress	Agr 1	Urbana
Jordan, Robert James	LA 3 SS	Minneapolis
Joseph, Walter Edward	SS	Hayden, Ind.
Judy, John Milton	L 1	Champaign
Juergens, Arthur Henry	CE 2	Chicago

CE 4	Chicago
	Petersburg
	Champaign
	Chicago
	Princeton
	Princeton
	Barberton, O.
	Pittsfield
	Salem
	Oregon
ME 3	Aurora
Ch 3	Highland
	Herscher
CE 3	Chicago
ME 1	Chicago
ME 3	Champaign
Agr 1	Friona, Tex.
	Dongola
L 2	Monticello
Agr sp	Chicago
ME 1	Oak Park
EE 1	Ottawa
EE 1	Ottawa
CE 4	Moweaqua
EE 1	Aurora
EE 1	Aurora
Md 1	Aurora
CE 1	Blossburg, Pa.
LA 2	Amboy
Agr 2	Chicago
LA 1	Colfax, Ia.
L 2	Urbana
LA 1	Elmhurst
SS	Perry
L 1	Peoria
EE 2	Centralia
SS	Kell
Agr sp	Huntertown, Ind.
LA 1	Bondville
LA 1	Chicago
Agr 4	Quincy
	Ch 3 Md 2 CE 3 ME 1 ME 3 Agr 1 Agr 3 L 2 Agr sp ME 1 EE 1 EE 1 EE 1 EE 1 LA 2 Agr 2 LA 1 LL 2 LA 1 SS L 1 EE 2 SS Agr sp LA 1 LA 1 LA 1 LA 1

Kelley, Arthur Caryl	BLA 2	Urbana
Kelley, Clement Earl	SS	Cloverdale, Ind.
Kelley, Ralph Leverett	A 1	Elgin
Kelley, William Ernest	LA $sp$	Urbana
Kelly, Alfreeda Ruby	LA 1	Independence, Kan.
Kelly, Christmas	S 2	Champaign
Kelso, Leon Woodford	LA 1	Paxton
Keltner, Charles Henry	S 4 $SS$	Union Bridge, Md.
Kemman, Herbert Fred	Agr sp	LaGrange
Kempf, George Arthur	EE sp SS	Chicago
Kendall, Abner Fred	L 1	Watseka
Kendall, Harry Cole, B.S.,		
(Mass. Inst. Tech.), 1905	Mus sp	St. Louis, Mo.
Kendall, John Thomas	LA 2	Farmer City
Kennan, Charles Marshall	LA 3	Maysville, Ky.
Kennedy, Clayton Franklin	MSE 2 SS	Elgin
Kennedy, Kathryn Beatrice	LA 1	Urbana
Kennedy, Robert Edwin	ME 1	Vincennes, Ind.
Kent, Edward Raylor	AE 3	Chicago
Kent, Lee Carson	EE 2	Gridley
Keown, Berthold Logan	ME 3 SS	Centralia
Kercher, Wilbur Morris	Agr 3	Walnut
Kerker, Harry Edward	L 1	Urbana
Kern, Evans Sherwood	Agr 1	Rockford
Kern, Murrel Albert	LA sp	Watseka
Kerndt, Alfred Henry	ME 2	Salida, Col.
Kerr, Grace Alice	LA 3 SS	Loami
Kerrick, Maude	LA 1	Brocton
Kessler, Clarence Henry	EE 1	Kirkwood
Kessler, Harvey Lamech	SS	Smithboro
Kettle, Charles Brown	EE 1	Oswego, N. Y.
Kettron, Henry Pearson	CE 3	Macomb
Keys, Louesa Jane	HSAgr 2	Normal
Kiedaisch, Edward	A 1	Keokuk, Ia.
Kiedaisch, Karl	CE 4	Keokuk, Ia.
Kienzle, Clair Lillian	HSAgr 2	St. Joseph
Kiger, Oscar Newton	SS	Mansfield
Kilbury, Mable Rachel	SS	St. Joseph
Kilby, Hubert St. Clair	EE 1	Minier
Kildahl, Cyril Peter	Ch 1	Dundee
Kimball, Lorenzo Amos	Agr 1	Dundee

Kimbell, Arthur Willis	CE 1	Chicago
Kindig, Omer Charles	SS	Roanoke
King, Carl Benton	A 1	Hancock, Mich.
King, Charles Stanley	EE 1	Rock Island
King, Grant Emery	$\Delta gr$ 1	Plainfield
King, John Wilfred	EE 3	Moline
King, Lillian May	HSAgr 1	Plymouth
Kingsbury, Mrs. Ethel Alice	LA 1	Urbana
Kingsbury, Howard Baker, A.B., 1909	SS	Champaign
Kingsbury, Margaret Lucy	Lb 4	Ventura, Cal.
Kingsbury, Theodore Marshall	Agr 1	Indianapolis, Ind.
Kiningham, Walter	Agr sp	Danville
Kinney, Jacob Millison, A.M.,		
(Univ. of Neb.), 1907	SS	Spencer, Ind.
Kipp, Karl Parker	Agr 4	Mineral
Kirby, Carl Augustus	Agr sp	Petersburg
Kirby, Wayne Isaac	CE 1	Cerro Gordo
Kircher, Edward August Theodore	LA 3	Chicago
Kircher, Paul Carl Henry	S 3	Chicago
Kirchhoff, Roger Charles	A 1	Wauwatosa, Wis.
Kirk, Bonum Lee	SS	Carbondale
Kirk, Donald Dee	SS	Carbondale
Kirk, James Thornton, A.B.,		
(Eureka Coll.), .1900	SS	Toulon
Kirk, Josephine	LA 1	Decatur
Kirkpatrick, George Marshall	Agr sp	Wingate, Ind.
Kirkpatrick, Harold Harvey	EE 1	Tiskilwa
Kirkpatrick, Hugh Jacob	ME 2	Roseville
Kirkpatrick, Robert Judson	ME 3	Benton
Kirkpatrick, William Stewart	CE 1	Kentland, Ind.
Kirkwood, Frances	LA 2 SS	Urbana
Kirkwood, Thomas	SS	Urbana
Klein, Francis Joseph	Agr sp	Klein
Klein, William Julius	43	Cincinnati, O.
Klemm, Julius Philip	BLA 1	Bloomington
Klontz, Clayton Wilson	Md 1	McConnell
Kleinbeck, Stella Pauline	LA 4	Litchfield
Kline, Otto Monroe	ME 3 SS	Bloomington
Klooster, Clarence Abel	AE 2	Oak Park
Knapp, Aurella	Lb 4	Normal
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Knapp, Charles Clayton, Ph.B.,		
(Iowa Coll.), 1903	Lb 4	Guymon, Okla.
Knauss, Douglas Stanley	ME 3	Philadelphia, Pa.
Kneberg, Goldie Minnie	HSAgr 4	Moline
Knight, Bradley Jay	L 3	Rochelle
Knight, John Clement	Agr 1	Yorkville
Knight, Mabel Alma	LA 2	Champaign
Knoche, Rolland	L 2	Ridgeville
Knowles, Charles Harrison	CE 3 SS	Chicago
Knowlton, Gladys Gould	SS	Bushnell
Knox, Raymond Kenneth	A 2	Pitts field
Koch, Flora Maria	LA 3	Jacksonville
Koestner, William	CE 4	Melvin
Kohin, Francis Thomas	SS	LaSalle
Kohin, Thomas Cornelius	SS	LaSalle
Kolmer, Richard Emil	Agr sp	Waterloo
Koons, Guy Jink	SS	Isabel
Korsmo, Edward Oswald	CE 3	Elgin
Kosters, Stuart Farnsworth	CE 1	Chicago
Kraeger, John Franklin	Ch 2	Pekin
Kraft, Marguerite	HSLS 1	Collinsville
Kraker, Anna	SS	Minonk
Kramer, Gustave August, A.M., 1907	SS	Blackstone
Kramer, Jesse C	EE 1	Chicago
Krannert, Herman Charles	ME 3	Chicago
Kratz, Elwin Valentine	AE 2	Champaign
Kratz, Ethel Gyola	LA 4	Champaign
Krause, Emma Augusta	LA 2	Secor
Krebs, William Samuel	BLA 1	Oak Park
Kreidler, Dana Walter	ME 3	Hornell, N. Y.
Kricke, Alice	LA 3	Beardstown
Krieger, Augusta May	LA 4	Peoria
Krietemeyer, Carl Oscar Frederick	Agr 1	Quincy
Krohn, Gretchen	LA 2	Chicago
Kromer, John Carl	EE 1	Elgin
Krueger, Arthur Frederick	Agr sp	Chicago
Krueger, Ernest Theodore	LA 4	Blue Island
Kubat, Frank	EE 1	Chicago
Kuby, Genevieve Campbell	LA 1	Chicago
Kuhl, William Prentice	BLA 4	Lincoln
Kummer, Ludwig	RE 4	Chicago
Kunz, Walter Frederick	Agr 4	Chicago

Kurt, John Joseph	ME 1	Clinton
Kyner, Charles Leslie	SS S	Clinton
Labahn, Albert Lewis		Leroy Chicago
Labahn, Charles John	Agr sp Agr sp	Chicago
LaBelle, Johnston Noble	RE 3	Bloomington
Lager, Martin Frank	Agr sp	Geneseo
Lafferty, George Gustavus	SS	Galesburg
Lagerstrom, David Reuben	LE 3	Dundee
Lagniton, Isabelo Jeneno	CE 4 SS	
Laguiton, Isabelo Jeneno	OE 4 33	East Lopez, Jara, Iloilo, P. I.
Lagaria Anthony Domone	CE 1	
Lagorio, Anthony Powers		Chicago
Laing, George Driver	Agr 2	River Forest
Laird, Elmer Ray	ME 1	Otterbein, Ind.
Lake, Arthur Howard	EE 2	Leland
Lake, Bennie Wilson	Agr sp	Fancy Prairie
Lamb, Allie Bie	LA 1	Champaign
Lamb, Carter Herbert	EE 4	Chicago
Lamb, Charles Augustus	BLA 2	Champaign
Lamb, Nellie Bly	LA 2	Champaign
Lamborn, Brown	Agr 2	Chicago
Lamborn, Merlie	LA 1	Chicago
Lamkey, Ernest Michael Rudolph	S 1	Riverton
Lampman, James William	A 3	Urbana
Lamson, Leon	Agr 1	Rensselaer, Ind.
Landon, Herbert Updike	Agr 1	Jerseyville
Landor, Walter	CE 3	Canton, O.
Landsea, Albert Fabian	$EE \ \mathcal{Z}$	Chicago Heights
Lane, Clyde Clarence	L 1	Champaign
Lane, James George	EE 1	Harvey
Langdon, Margie Ethol	LbLA 1	Monterey, Cal.
Langdon, Roy Monroe	LA 3	Chicago
Lange, Sophie	LA 3	Champaign
Lantz, Etta Mable	HSLA 1	Carlock
Lanum, Harold Baird	Agr 1	Champaign
Lapham, Gail Hamilton	SS	Galesburg
Large, Zelma Ria	LA 4	Owaneco
Larkin, Charles James, Jr.	BLA 1	Rock Island
Larkin, Francis DuLude	ME 2	Chicago
Larkin, Ida Clementine	LA 1	Chicago
Larkin, William James	AE 1	Chicago
Larmer, Dave Welty	A 1	Chicago

Larson, Harry Peter	Agr 3	Paxton
Larson, Martha Serena	LA 4 SS	Morris
Larson, Roy Harold	ME 2	Rockford
Lasswell, William Sturgis	RE 2	Springfield
Lattin, Robert Thomas	LL 2	Akron, O.
Laudemann, Harry Mohn	Md 1	Warsaw, Ind.
Laughlin, Logan	Agr 2	Paris
Lauher, Paul Bliss	L 1	Paris
Laurence, Albert Frederick	Agr 4	Paxton
Lauter, Carl John	ChE 3	Quincy
Lawler, Orrin Hugh	L 3 $SS$	Rushville
Lawrence, Charles Wesley	CE 3	Rantoul
Lawrence Guy Loftus	EE 2	Libertyville
Lawrence, Mildred	LA 2	Sterling
Lawrence, William Arthur	ME 1	Bellefontaine, O.
Lay, Chung Yuen	CE $sp$ $SS$	Hupeh, China
Laybourn, Harriet Fern	SS	Paxton
Layden, John Emmett	L 3	Cheneyville
Layden, Ted Edmond	Agr 1	Cheneyville
Layer, Hugo	AE 3	Chicago
Lear, George Bratten	BLA 3	Chicago
Leas Frank Stevens	Agr sp	Urbana
Leas, Mildred	LA 4	Urbana
Leathers, Clarence Elmer	SS	Olney
Ledgerwood, Josephine	HSAgr $sp$	Austin
Lee, Everett Samuel	EE 1	River Forest
Lee, Izora	HSAgr 1	A ledo
Lee, John Charles	CE 1	Chicago
Lee, Otis Hoit	Agr 3	A ledo
Lee, William Hamilton	SS	Urbana
Leffel, Kittie May	LA 2	Kankakee
Leggett, Raymond George	CE 2	Canton, O.
Lehman, Ruel Forrest	EE 4	Sidney
Lehner, John Conrad, A.B., 1902	SS	Stockton
Leiserowitz, Benjamin Simon	LA 1 $SS$	Herscher
Lemley, Robert	ME 1	Chicago
Leo, Herbert Thal	Ch 2	St. Louis, Mo.
Leonard, Florence Ethel	LA 2	Woodstock
Leonard, Frances Bostwick	LA 3	Urbana
Leonard, Frank Bonner, Jr.	LA 2	Metropolis
Leonard, Harold Raymond	Agr 3	Woodstock

Leonard, Herman Thomas	S $sp$	Decatur
Leonard, Ruth	LA 2	Urbana
Leopold, Elmer Edward	LA 1	Belleville
Lescher, Frank Mills	A 4	Topeka, Kan.
Leslie, Elmer Archibald	LA 4 SS	Tolono
Leslie, Eugene Hendricks	ChE 1	Ottawa
LeSure, Charles Samuel	Agr 4	Olney
Letts, Warren Springer	Agr 2 Colun	ibus Junction, Ia.
Leutwiler, Richard Walter	ME 3	Highland
Levey, Clarence John	ME 3	Chicago
Levinson, Lazarus	CE 4	Chicago
Levis, Charles Parker	LA 4	Alton
Levis, William Edward	L 1	Alton
Leviton, Henry Isadore	CE 3	Chicago
Lewis, Alice	HSLA 1	Harrisburg
Lewis, Edna	LA 3	Harrisburg
Lewis, Elmo Vernon	Agr 1	Camp Point
Lewis, Elta Jewett	LA 1	Champaign
Lewis, Fred Dickerson	Agr 2	Wheaton
Lewis, Goodrich Quigg	ME 4	Wheaton
Lewis, Katherine	LA 2	Chicago
Lewis, Louise Laura	HSAgr 1	Cairo
Lewis, Lucy Elfa	LA 3	Danville
Lewis, Mabel Rebecca	SS	Brooklyn
Lewis, Philip Howard	L 1	Lawrenceville
Lewis, Ralph Rice	RE 2	Fremont, Mich.
Lewis, Richard Hanna	Ch 4 SS	Chicago
Lewis, Walker	A 1	Urbana
Lienesch, James Ralph	Agr sp	O'Fallon
Light, Curtis Roy	CE 1	Brook, Ind.
Lillard, Charles Parke	CE 1	Bloomington
Lincoln, Lewis Leigh	LA 1	York, Neb.
Lindberg, Irving August Isaac	BLA 4	Cherokee, Ia.
Lindberg, Ruth Marie Rebecca	LA 2	Chcrokee, Ia.
Lindblom, Ernest Francis	EE 3	Paxton
Lindeman, Frank Henry	EE 1	Farmer City
Linder, Grace	HSAgr 2	Urbana
Linderoth, Samuel Joseph	L 1	Chicago
Lindley, June	LA 3	Urbana
Lindsey, Nelle Mabel	HSAgr 1	Champaign
Lindstrom, Arthur William	ME 2 SS	Varna

Litchfield, Beulah Glendale	LA 1	Flanagan
Little, Guy S	CE 1	Sullivan
Little, LeRoy Lewis	LA 4	Champaign
Littlefield, William Edward	L 1	Terre Haute, Ind.
Littlejohn, Lulu Leah	LA 2	Farmer City
Littler, Sherman Henry	SS	Potomač
Littleton, Ananias Charles	BLA 2	Blooming ton
Lively, Truman Goodwin	EE 2	Chicago
Livingston, Lionel Lyman	CE 2	Fillmore
Llewellyn, Ruth	LA 3	LaGrange
Lloyd, James Henry	Agr 3	Girard
Lloyd, Nellie Evelyn, A.B., 1909	LA $sp$	Evanston
Lloyde, Robert Kellogg	Agr 1	Champaign
Lobaugh, Charles Martin	Agr 1	Champaign
Lobdell, John Randolph	Agr 2	Champaign
Loeffler, Frank Xavier	CE 1	Chicago
Loehr, Theodore Edwin	CE 2	Carlinville
Lohman, Adelaide Laura	SS	Urbana
Lohman, Frederick Charles	CE 3 SS	Gibson City
Lohr, Louis Warren	BLA 1	Pana
Long, Fred Reeve	SS	Marne, Ia.
Long, George Archibald	S 1	Rensselaer, Ind.
Long, William Henry, B.S.,	SS	Evanston
(Northwestern Univ.), 1906		
Lopez, Asuncion	SS	Durango, Mex.
Lord, Arthur Russell, B.S.,		,
(Maine), 1907	SS	Ipswich, Mass.
Lord, Chester Arthur	CE 4	Sioux Falls, S. Dak.
Lord, Walter Eugene	CE 4	Sioux Falls, S. Dak.
Lorensen, William	CE 2	Glen Ellyn
Lorimer, Leonard Joseph	RE 2	Chicago
Lounsbury, John Moore	Agr sp	Irving
Loutzenhiser, David Alonzo	LA 2	Danville
Loutzenhiser, Sarah Eula	LA 2	Danville
Love, Chase Whitney	BLA 4	Urbana
Love, Florence Deborah	LA 2	Decatur
Love, Mary Elizabeth	LbLA 2	Urbana
Loveless, William Raymond	CE 1	Altamont
Lowe, Robert	Agr 4	Phoenix, Ariz.
Lowry, Guy Ellsworth	SS	Argos, Ind.
Lowry, Merril Fairman	ME 2	Woodhull

Lowry, Thomas Kirkpatrick	BLA 2	Chicago
Lucas, Frank Blackburn	ChE 2 SS	Elgin
Lucas, Leigh Willard	Agr 2	Mt. $Pulaski$
Luckhauft, Fannie May	SS	Marshall
Ludwig, Edward Roy	A 3	Minneapolis, Minn.
Luedke, Gustav Paul	Agr sp S	S Chatham
Luers, George Albert	EE 1	Spring field
Lummis, Benjamin Bayard	CE 1	LaSalle
Luney, Edward Ross	EE 1	DeKalb
Luney, Ellzey Hogan	SS	DeKalb
Lundahl, Raymond Rudolph	CE 3	Paxton
Luther, Caroline	LA 2	Savoy
Lutton, Charles Edwin	Mus 3	Chicago
Lydon, John Coyle	ME 1	Oklahoma City, Okla.
Lyford, Mabell	LA 3	Fall City, Neb.
Lyman, George Robert	EE 3	Maroa
Lynch, Harold William	S 4	Peoria
Lyon, Earl Wallace	CE 3	Yorkville
Lyons, Thomas Edwin	LA 3	Arcola
McAdow, Eugene Finley	ME 2 SS	Chicago
McAllister, Herbert Thompson	Ch 4	Farragut, Ia.
McAllister, John Edward	EE 1	Batavia
McAllister, William Knowlton	LA 4 L 1	1 Wenona
McBeath, Grace	Mus 1	Champaign
McCandless, Howard Archibald	BLA 1	Rock Island
McCarty, Emily Lucile	SS	Champaign
McCaskey, Paul Alfred	BLA 3	Chicago
McCaughey, Louis Douglas	EE 1	Macomb
McClain, Fred H	EE 4	Lincoln, Neb.
McCleery, Ben Harrison	LA 2	Cherokee, Ia.
McClelland, Cochran Bruce, B.S.,	Agr sp	Galesburg
(Knox Coll.), 1909		
McClintock, Margaret Christine	HSAgr 1	Chicago
McClung, David Arthur	CE 2	Mt. Carmel
McClurg, Lola	LA 4	Urbana
McClurg, Wade	CE 2	Monticello, Ind.
McCollister, Marcus Sanders	CE 4	White Hall
McComb, Dana Quick	CE 4	Fort Collins, Col.
McComb, Mrs. Mary Olive	HSAgr 1	Sedalia, Col.
McConnell, Andrew Henry	BLA 2	Reynolds
McConoughey, Porter David	S 1	Chicago

McCord, Ralph Nichols	LA 4	Bloomington
McCormack, Charles Eugene	EE 4	Chicago
McCormick, Elmer	ME 2	Pontiac
McCoy, Dwight Wesley	LA 2 $SS$	Versailles
McCreary, Hubert	Agr sp	Camden, O.
McCuen, Glenn William	ME 2	Chebanse
McCune, Joseph McCrary	LA 1	Kansas City, Mo.
McCuskey, Jane	LA $sp$	Varna
McDaniel, Lillie	SS	Champaign
McDermet, Rudolph	RE 2	Seattle, Wash.
McDonald, Elmer Massey	Agr 4	Lerna
McDonald, Herbert William	A 2	Chicago
MacDonald, William Towner	ME 3	St. Charles
McDonnell, Marie Josephine	SS	Chicago
McDowell, Ishmael Worth	EE 3	Centralia
McDowell, Samuel Klein	SS	Leroy
McDowell, Vann Essa	LA 1	Forrest
McElhiney, Lee Allen	CE 4	Kenney
McElroy, Thurman Eric	Agr 1	Bardolph
McElvain, Ernest Cowens	EE 1	Pinckneyville
McElwain, Jennie, B.S.,	SS	Knoxville
(Hedding Coll.), 1905		
McEvoy, Cecil Calvert	L 1	Ottawa
McEvoy, John Stewart	AE 1	Ottawa
McFadden, Stanley Bruce	Agr 1	Havana
McFarland, Eugene Harris	A 2	Valley City, N. D.
McGee, Edna Amelia	LA $sp$	St. Joseph
McGill, Elizabeth Roberts	LA 2	Chicago
McGinnis, Archibald, Jr.	EE 3	Effingham
McGorrisk, Daniel Hunt	AE 1	Des Moines, Ia.
McGrath, Francis Xavier	Cer 2	Jerseyville
MacGregor, Halbert P	ChE 1	Estes Park, Col.
McGrew, Charles Babcock	A 1	Lewistown
McGurty, Agnes	SS	Champaign
McHarry, Jessie	LA 3	Rantoul
McHarry, Liesette Jane	LA 2	Rantoul
McIntire, William Raphael	CE 3	Chicago
McIntosh, Harold Stanton	ME 1	Geneva
McIntosh, Raymond Donald	L 1	Duxbory, Mass.
McIntyre, Eva Lyle	LA 3	Champaign
McIntyre, George Edward	AE 2	Monmouth

McIntyre, Mabel	LA 1	Newman
McIntyre, Otto Everett	L 1	Benton
McKee, Edna Belle	LA 1	Kankakee
McKee, Paul Harmon	LA 2	Mason City, Ia.
McKee, Paul Sloan	$LA$ $\mathscr Q$	Tuscola
McKenzie, Edith Edna	HSAgr 1	Urbana
McKeever, William Earl	Agr 4	$Gibson\ City$
McKim, Wilson Moran	BLA 1 SS	Tokio, Japan
McKinnell, Isabelle Georgia	LA 1SS	Texarkana, Texas
McKinney, Ashley Lyle	L 1	Urbana
McKinney, Lilabel	LA 4	Gifford
McKinnie, Earle Clarence	EE 3	Blooming ton
McLamarrah, Thomas Frederick	SS	Yates City
McLarty, Ray Clark	BLA 2	Rockford
McLaughlin, James William	ME 1	Paris
McLaughlin, Robert John	Agr sp	Carter
McLean, John Crocker	RE 4	Maroa
McMackin, Mary Gertrude	LA 2	Roanoke
McMaster, Alva Henry	Agr sp	Garden Prairie
McMillen, John Huston	Agr sp	Milmine
McNary, Forrest C	CE 2	Martinsville
McNichols, Kate	SS	Carlinville
McNiel, Ralph Alonzo	MSE 3	Rector, Ark.
McQuaid, John Joseph	BLA 2	Champaign
McQuiston, William Carl	Agr sp	College Corner, O.
McRobie, Jessie Barbara	LA 2	Chicago
McVay, Thomas Newkirk	EE 1	Urbana
McWethy, Dan U	ME 1	Aurora
Machamer, Elmer Edward	EE 1	Fulton
Mack, Ida Rose	LA 3	Chicago
Mackay, Robert Partello	Agr 2 .	Mt. Carroll
Makey, Floyd James	ME 4	Genoa
Mackey, John Columbus, Jr.	Agr sp	Vienna
Mackin, Marie	AD 1 SS	Omaha, Neb.
Madden, Joseph Warren	L 1	Freeport
Madden, William Dillon James	SS	Ogden
Madison, George, A.B., 1908	SS.	Savanna
Magee, Elon Charles	Agr 2	Geneseo
Maguire, William Chester	L 3 $SS$	Urbana
Mail, Eugene Frederick	CE 3	Robinson
Major, Margaret	HSAgr 1	Chicago
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Maki, Itsu	LA 2	Shimodate, Japan
Mallary, Ernest Noel	EE 2	Pontiac
Mallory, Meredith	Md 3 SS	Batavia
Malone, Rae Irene		Oklahoma City, Okla.
Mamer, Christopher, Jr.	L 3	Chicago
Manauton, Gregorio	SS	Arryo, P. R.
Mandel, Elias	ChE 2	Chicago
Mandler, Henry Emil	SS	Bloomington
Mandeville, Hazel Denton	HSAgr 4	Champaign
Mangas, Lyman Samuel, A.B., 1908	L 3	Lincoln
Manierre, Alfred Edgerton	A 4	Chicago
Manley, Olive Mary	LA 1	Harvard
Manley, Verna Adaline	LA 1	Champaign
Mann, Alban Whitford	EE 3	Elgin
Mann, Edith Melvina	LA 1	Kankakee
Mann, Elsie Elvena	HSLA 1	Kankakee
Mann, Harold Edward	Agr 1	Rossville
Mann, Mary Barbary	Mus sp	Shumway
Mann, Mary Elizabeth, A.B., 1909	Mus 4	Gilman
Manning, William Albert, Ph.D.,		• • • • • • • • • • • • • • • • • • • •
(Univ. of Paris), 1904	Mus sp St	anford University, Cal.
Manock, Wilbur Ray	CE 4	Farmer City
Mansfield, Arthur Tilden	Ch sp SS	Woodhull
Manspeaker, Welsh Walker	CE 2	Champaign
Marbach, Henry Adam Lewis	CE 2	Chicago
Mark, Clayton, Jr.	ME 1	Lake Forest
Marquardt, Willard Horace	CE 1	Dayton, O.
Marshall, Frank Edward	EE 1	Serena
Marshall, Hester Lou	HSAgr 1	
Marshall, Olive	SS	Paris
Marten, Redick Wylie	CE 1	Tolono
Martin, Claude	Agr 1	Mason City
Martin, Earle W	EE 4	Geneseo
Martin, Helen Emily	HSAgr 1	Granville
Martin, Oscar Ross	SS	Granite City
Marvin, Paul Dwight	A 3	Beatrice, Neb.
Mason, Mayme Sequine	EE 3	Buda
Mason, Roy Skinner	A 4	Tacoma, Wash.
Massey, Henry Arthur	LA $sp$	Washington, D. C.
Math, Earle Robinson	AE 3	Chicago
Matheny, Lee Verne	SS	Chenoa

Matheny, Willard Reynolds	EE 1	Spring field
Mather, Cornelia Grace	HSS 1	Plainfield
Mathers, Leslie Eugene	Agr 1	Momence
Mathers, Manley Bonham	Agr 1	Momence
Mathews, Charles Willard	CE 3 SS	Marissa
Mathews, Grace	SS	Indianapolis, Ind.
Mathews, Howard	EE 1	Yates City
Mathews, William Elmer	CE 1	Potsdam, N. Y.
Mathis, Frances Willard	LA 3	Sidney
Mathis, Victor Alvin	RE 4	Sidney
Matsuyama, Motoyoshi	Agr 1 SS	Kyoto, Japan
Matter, Herbert John	S 1	Wheaton
Matthews, Leigh Meryl	ME 2	Urbana
Matthews, Martha Marie	HSAgr 4	Onarga
Matthews, Nellie Pearl, A.B., 1908	SS	Burlington, Ia.
Matthews, Stanley Grant	Agr sp	Urbana
Matthewson, James Otis	Agr 3	DeKalb
Mattis, Ida Levering	AD 2	Champaign
Mattoon, Charlotte Mae	LA 2	Champaign
Mattson, Earl Nels	ME 2	Chicago
Mattson, Olive May	HSLA 3	Chicago
Mauel, Leonard	CE 3	Chicago
Maurer, George Otto	Agr sp	Virginia
Maurer, Leslie Fern	LA 1	Marshall
Maury, John Alvin	EE 1	Rossville
Mautner, Leo A	ChE 3	Chicago
Maver, David Blair	CE 3	Chicago
Maxey, Charles Lester	LA 3 $SS$	Mt. Vernon
Maxwell, Carl	BLA 1	Lawrence ville
Maxwell, Jessie A	HSLA 1	Robinson
Maxwell, Lena	LA 3	Lawrence ville
Maxwell, Oliver Granville	L 1	Oakdale
Mayes, George William	EE 1	Champaign
Maynard, Frank Edwin	L $sp$	Oregon
Mayne, Louis Brawley	LA 4	Camden, Ind.
Mead, Alice	HSAgr 1	Chicago
Meek, Alva Brace	Agr 4	Carrollton
Meek, Charles Thaddeus	Agr 1	Carrollton
Mellen, Arthur Franklin	Ch 3	Amboy
Meeker, Daniel Sunderland	Agr 1	Delavan
Meharry, Paul Francis	Agr 2	Tolono

Melloy, Martin Aloysius	CE 3	Libertyville
Melrose, Mary Hazel	LA 4	Grayville
Melvin, Glenn Ivan	Agr sp	Stronghurst
Mench, John George	EE 3	Monticello
Mengel, George Henry	ChE 1	Moline
Mengel, John Godfrey, Jr.	CE 1	Champaign
Merrill, Thompson Arelene	BLA 1	Beardstown
Merrills, Marshall Crittendon	LA 1	Belleville
Merriman, John Riley	Agr 2	Spring field
Meserve, Theodore Decatur	Md 3	Robinson
Mesick, Raymond Frederick	EE 1	LaHarpe
Mesirow, Benjamin Salmon	L 1	Chicago
Mess, Lilian	LA 3	Benton Harbor, Mich.
Meyer, Michael Israel, B. S.,		
(Univ. of Chicago), 1908	SS	Chicago
Meyer, William	MnE 2	Rock Island
Michael, Harry	LA 3 SS	S Chicago
Miche, Irene Eleanor	LA 1	Elmhurst
Michener, Harry J	BLA 1	Homer
Middlesworth, Tarsia Maude	LA 1	Shelbyville
Middleton, Walter Stanley	CE 1	Assumption
Miles, Laurence Hursh	BLA 3	Savanna
Miles, Lois Maia	LA 4	Bushnell
Miles, Paul Keiter	ME 2	Savanna
Miller, Adele Clara	SS	Belleville
Miller, Arthur Edgert	CE 2	Rockville, Conn.
Miller, Bert Andrew	ME 4	Forrest
Miller, Charles Murrel	Agr 2	Atlanta
Miller, Chester Frederick, A.B.,		
(McKendree Coll.), 1907	SS	Lebanon
Miller, Earl Franklin	A 1	Manitowoc. Wis.
Miller, Edwin Morton	Md 4	Geneva
Miller, Mrs. Ella Garrison	SS	Granite City
Miller, Floyd Emmet	$CE \ Z$	Seymour
Miller, Gene John	ME 1	Boswell, Ind.
Miller, George Clarence	L 1	Sullivan
Miller, Gertrude Evalyn	SS	Lake Villa
Miller, Helene Augusta	SS	Paris
Miller, Jessie Fay	LA 1	Gilman
Miller, John Austin	Agr sp	Aurora
Miller, Laura May	HSAgr	4 Dubuque, Ia.

Miller, Mabel Lucille	LA 1	Urbana
Miller, Marie Maude	LA 3	Lincoln
Miller, Milo Kirk	Md 2	Urbana
Miller, Paul Campbell	AE 3	Urbana
Miller, Robert Arthur	CE 4	Bethany
Miller, Samuel Leslie	S 2	Timewell
Miller, Warner de Vore	LA 1	Geneva
Miller, Welby West	BLA 1	Urbana
Miller, William Christian	CE 4	Sycamore
Milligan, Helen Margaret	LA 4	Hinsdale
Millizen, John Edson	EE 2	Sullivan
Mills, Buren Orville	EE 1	Champaign
Mills, Guy G	CE 3	Champaign
Milne, Edward Lawrence, M.S., 1900	SS	Champaign
Milne, Frank Maitland, Jr.	Agr 1	Lockport
Miner, Leslie Earl	CE 4	Gibson City
Miner, Mary Ethel	HSAgr 2	Adair
Miner, Paul Irving	Agr 4	Adair
Miner, William	SS	Pana
Mirick, Harry Rugee	BLA 1	Chicago
Misenhimer, Alice Irene	S 2 .	Oak Park
Mitchell, Eva	LA 1 SS	Campbellsville, Ky.
Mitchell, Isaac	SS	Urbana
Mitchell, Janet	HSAgr 1	Chicago
Mitchell, Joe Orlando	A 1	Marshall
Mitchell, Lucile	LA 1 SS	Urbana
Mitchell, Nolan Dickson	AE 4	Greenway, Ark.
Mix, Martin Ira	ME 1	Chicago
Mize, Robert Charles	L 1	Monticello
Moburg, Cornelius Frederick	Agr sp	Cameron
Moffat, Frederic Earle	Agr sp	Park Ridge
Moffett, John Karl	L 1	Paxton
Mohlman, Floyd William	Ch 3	Beardstown
Mohr, Alba Agnes	ArtLA sp	Urbana
Mohr, Herman	L sp	Chicago
Moir, Robert Burrell	CE 1	Chicago
Mojonnier, Oliver William	Ch 4	Highland
Mojonnier, Julius John	Ch 2	Highland
Monier, Harry Hammond	SS	Champaign
Monroe, Ralph	L 2	Sullivan
Montague, Albert Richardson	RE sp	Chicago
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Montegel, James Ralph	AE 3	Redlands, Cal.
Montgomery, Ben Mershon	Agr sp	Petersburg
Montgomery, Cecile	SS	Bloomington
Montgomery, Harry Edgar	EE 2	Blue Mound
Montgomery, Max Alfred	A 2	Urbana
Moody, Edna Elizabeth	LA 1	Chicago
Moon, Ida Mae	LA 4	Lexington
Moon, Maud Maye	LA 3	Tuscola
Moon, Paul Cyrus	Agr 1	DeKalb
Moore, Claribel Burton	LA 3	Indianapolis, Ind.
Moore, Ellsworth	LA 4 $SS$	Augusta
Moore, Genevieve	S 3	Urbana
Moore, Harriett Elizabeth	LA $sp$	Decatur
Moore, Harry Albert	EE 4 SS	Oneida
Moore, John Carbart	L 1	Riverside
Moore, Mary Rebecca	LA 3	Tolono
Moore, Nellie Anna	SS	Pittsfield
Moore, Philip Aylesworth	ChE 3	Phoenix, Ariz.
Moore, Ruby Frances	LA 1	Urbana
Moorehouse, Frances Milton	LA 4 SS	Wyoming
Morey, Lloyd	LA 4	Urbana
Morey, Louise	Mus 1	Grcenville
Morgan, Alfred Clarence	ME 1	Mt. Vernon
Morgan, Alta Hattie	HSLA 4	Aledo
Morgan, Benjamin Franklin	LA 1	Urbana
Morgan, Charles Leonard	A 3	Urbana
Morgan, Chester Arthur	SS	Dawson
Morgan, Frederic Lindley	A 2	Urbana
Morgan, John William	SS	Clayton
Morgan, Lyman Judd	A 1	Hampshire
Morrill, Guy Lyman	ME 2	Kewanee
Morris, Arthur Marvin	S 1	Oskaloosa, Ia.
Morris, Benjamin Ray	SS	Forrest
Morris, George	LA 4	Congress Park
Morris, George William	SS	Indianapolis, Ind.
Morris, Harvey B	EE 1	Kansas
Morris, N. W.	SS	East St. Louis
Morris, Sidney McCagg	SS	Oskaloosa, Ia.
Morris, William Fennell, Jr.	Agr sp	Maywood
Morrison, Charles Brown	Agr sp	Ramsey
Morrison, Howard Monroe	Agr sp	Homer

Manufactor December 1 17 de	OT 4	7.11.4
Morrison, Raymond Keir	CE 1	Joliet
Morrison, Roger LeRoy	CE 3 SS	Winnetka
Morrison, Willa Agnes	Mus sp	Rockford
Morrissey, Edward Henry	SS	Champaign
Morrow, George Dwight	L 1	Waukegan
Morse, Chester Arthur	CE 2	Zanesville, O.
Morton, Roy Albert	Agr 1	Golden
Moschel, Herman	ME 4	Chenoa
Moser, Lee Elwood	EE 2	Siegel
Moser, Olga Fern	Mus 1	Siegel
Mosiman, Joseph Edward	A 3	Morton
Moss, Royal Ross	BLA 4 SS	Morris
Moss, William Dexter	BLA 1	Linton, Ind.
Motsinger, Edward Francis	CE 3 $SS$	Canton
Mottier, Charles Halvatious	CE 4	Gibson City
Moulton, Herbert Lewis	Cer 1	Glen Ellyn
Moulton, Lora Belle	HSAgr 1	White Hall
Mount, Darius Orendorff	Agr sp	Delavan
Mountjoy, Earl Logan	ME 2	Atlanta
Mourning, Martha Russell	$HSAgr\ sp$	Urbana
Mourning, Mary Katherine	LA 3 $SS$	Urbana
Mourning, Nellie Irene	LA 2	Urbana
Mueller, Gustav Henry	MSE 3	Carlinville
Mulfinger, Carl Wesley	Md 1	Chicago
Mull, Mrs. Beth Warner	HSS 3	Emporia, Kan.
Mull, Emmaleen Irene	HSLA 1	Pana
Mullen, Cirilo Joseph	BLA 3	Buenos Ayres, Arg.
Munch, Arthur Hiram	EE 3	Joliet
Munich, Anton Harry	L 2	Kankakee
Munroe, Courtland Leroy	ChE 3	River Forest
Munson, Chester Wright	ME 4	Morris
Murdock, Louise M	HSS 1	Clinton
Murduck, Elizabeth Adams	LA 1	Champaign
Murduck, Roy Kenneth	ME 4	Champaign
Murphey, Fay Blanche	Mus sp	Urbana
Murphy, Chalmer Worch	BLA 3 SS	Urbana, O.
Murphy, Frank Dwyer	RE 2	Chicago
Murphy, Kendall Tuttle	CE 2	Sterling
Murphy, Mary Agnes	Mus 1	Sullivan
Murray, Frank Howe	EE 1	Clifton
Murray, Norris Fay	EE 2	Mazon

Murray, Orland Stewart	Agr sp	Champaign
Murrin, John Henry	CE 1	New York, N, Y.
Musselman, Thomas Edgar	LA 4	Quincy
Myers, Howard Dimick	CE 2	Lockport
Myers, Jacob William	LA 3	Harrisburg
Myers, Kate Genevieve	SS	Springfield
Myers, Myron Arthur	BLA 1	Hinsdale
Myers, William Allen	Md 1	Liberty, Ind.
Myrick, George Harold	EE 4	Crete
Nafziger, Henry T	EE 2	Aurora
Naprstek, Frank Joseph	AE 1	Chicago
Nau, Robert Harold	CE 2	Maywood
Nay, Joseph Raymond	AE 2	Kansas
Neal, Essie Edwina	LA 4	Chicago
Neal, Harry Folsom	LA 3	Charleston
Nebel, Merle Louis	EE 1	Clinton
Needham, Carrie Isabel	HSLA 2	Urbana
Neely, John Lynde	Agr sp	Seward
Neff, Edna Elizabeth	LA 3	Petersburg
Neil, Edwin Hall	CE 2	Kansas City, Mo.
Neininger, Alonzo Beda	CE 3	Alton
Nelson, Anton Leonard	EE 3 SS	Gibson City
Nelson, Benjamin	ME 4	Chicago
Nelson, Carl Ray	ME 2 SS	Galesburg
Nelson, Idris	S 2	Canton
Nelson, Peter Swan	ME 1	DeKalb
Nelson, Ralph Linis	ME 3 SS	Moline
Nelson, Raymond Andrew	Agr 1	DeKalb
Nelson, Roslyn Bertha	SS	Urbana
Nelson, Saidee Esther	LA 4	Princeton
Nesbitt, William Rheuby	Agr sp	New Richmond, Ind.
Nettleton, Elizabeth	LA 3	Ashton
Neu, Elbert	ME 2	Taylorville
Neuhalfen, Mathias	AE 1 SS	Grand Island, Neb.
Nevins, Arthur Seymour	CE 1	Camp Point
Nevins, Joseph Allan	BLA 2	Camp Point
New, George Raymond	Agr 3	Emporia, Kan.
Newburn, Francis Earl	Agr 1	Hoopeston
Newburn, Mary Ellen	Mus 1	Hoopeston
Newcomb, Pearle Elizabeth	LA 2	Champaign
Newcomb, Rexford	A 4	Burlington, Kan.

Newcomb, Thomas Frank	LA 1	Champaign
Newcomer, Floyde Eldin	LA 1	Lanark
Newlin, Charles Ivan	Agr 2	Indianapolis, Ind.
Newlin, Frank Enoch	L 2	Robinson
Newton, Leonard Victor	CE 1	Chicago
Nichol, Catherine Louise	LA 3	Urbana
Nichol, Marion Starr, A.B., 1908	SS	Urbana
Nichols, James Lawrence	EE 1	Naperville
Nichols, Jasper Willard	CE 1	Macon
Nichols, Ralph Uline	CE 1	Elgin
Nicki, Francis Stanley	ME 2	Chicago
Niederman, Gertrude	Mus sp	Chicago
Niehaus, William, Jr.	CE 2	Chicago
Nielsen, Suerre Ingemann	AE 1	Syracuse, Ind.
Nierstheimer, Louise Minnie	LA 2	Pekin
Nihan, Robert Edward Joseph	EE 4	Harvard
Niver, Julia Prudentia	HSLA 1	Muscatine, Ia.
Nixon, Edward Lynde	Agr sp	Chicago
Nixon, George Rittenhouse	BLA 3	Richmond, Ind.
Nixon, Sarah Louise	LA 1	Urbana
Noerenberg, Clarence Eugene,	LA 4 $SS$	Highland Park
(Arch. Eng.), 1909	~ . ~~	417 1
Nollen, Nell Alma	S 4 SS	Atlanta
Noon, James Arthur	LA 1	Everett, Mass.
Noon, John Eliot	LA 1	Everett, Mass.
Nordwall, Samuel Victor	Agr sp	Abingdon
Norman, Alvin Emanuel	S 1	Mediapolis, Ia.
Norman, Elisha Powell	L 3	Tamalco
Norman, Oscar Edward, A.B., (Univ. of Chicago), 1903	Lb 4	Mediapolis, Ia.
Norris, Albert Charles	SS	Rockford
Norris, George Brown	EE 1	Swanton, Vt.
North, William Atkinson	CE 4	White Hall
Norton, George Laurence	Agr 2	Neponset
Norton, William Eben	L 1	Pontiac
Novotny, Joseph Jaroslav	SS	Chicago
Nuckolls, Mary Elizabeth, B.S., 1909		Urbana
Nuttall, Everett Franklin	755 Ch 2	Flat Rock
Nye, Charles Arthur	CE 4	Harristown
Nymeyer, Fred Henry	BLA 3 SS	Goshen, Ind.
Oaks, Catherine Susan	Lb 4	Geneva, N. Y.
Oaks, Catherine Susan	LU 4	Geneva, Iv. Y.

Oaks, Charles Truman	Agr 1	Geneva, N. Y.
Oakland, Ever Stanley	Agr sp	DeKalb
Oathout, Claude Leslie	Agr 1	Cisna Park
Oberdorfer, Henry Dixon	AE 4	Marion
O'Brien, Harold Marcenallo	Agr sp	LaGrange
O'Connor, Charles Andrew	L 1	DeKalb
O'Donnell, Francis Malachy	EE 2	Chicago
O'Donnell, Hugh	Agr 3	Belvidere
O'Donnell, Richard P	L 1	Chicago
Oemke, Martin Frederick	L 1	Gifford
Ogden, Philip Langworthy	EE 2	Tiskilwa
Ogilvie, Lewis	SS	Mendon
Ogle, Arthur Hook	LA 1	Belleville
Ogle, Charles Robert	ME 1	Belleville
O'Hern, Charles Vincent	S 4 $SS$	Vermont
O'Hern, Thomas Leo	L 1	St. Augustine
Ohrum, Frances Robertson	LA 3	Cairo
Oldham, Clyde Carleton	Agr 2 SS	Urbana
Oliver, Chauncey Bristol	ME 2	Morgan Park
Olmstead, Clarence Eugene	LA 3	Genoa
Olney, Harold E	Md 1	Mendon, Mich.
O'Neal, Maude Pearl	SS	$\overline{U}rbana$
Onken, George Frederick	Agr 4	Gibson City
Orcutt, Albert Washburn	Agr 4	Arcola
Ordonez, Benito, Jr.	SS	Saltillo, Mex.
Ormsby, Lelia Mae	LA 1	Greenup
Orosa, Vicente Ylazan	MSE 3 SS	Banan, Batangas,
		Philippine Islands
Osborn, John Milton	LA 2	Butler
Osborn, Doris Adda	LA 1	Woodstock
Osborn, Edna Pearl	LA 3 SS	Belvidere
Osborn, Maude, A.B.,		
(N. W. Univ.), 1909	Lb 4	Scranton, Ia.
Osgood, Leonard Benjamin	Agr 1	Mendon, Mich.
Osman, Harold Choate	ME 1	Chicago
Osmena, Marian Virgilio	CE 3 SS	Cebu, Cebu, P. I.
Otis, Harold Anthony	EE 2	LaGrange
Otis, Spencer, Jr.	Agr 2	Chicago
Ottman, Harley Paris	Agr 1	Chicago
Otto, Harry Hugo	Agr sp	Elgin
Ou, Hua-ching	Agr 3 SS	Canton, China

Overholzer, Martin Jacob	EE 4	Sterling
Overland, Amy Marie	LA 2	St. Louis, Mo.
Overmier, Emmons	ME 1	Mt. Auburn
Overmier, Melvin D	$_{LE}$ 3	Mt. Auburn
Overstreet, Noah Webster	AE 4	Estabuchie, Miss.
Overstreet, Robert Harris	CE 1	Oak Park
Ovitz, Hazel Louise	LbLA 3	Mineral Point, Wis.
Pace, Ole Bly	LA 2	Farmer City
Pack, Margaret	LA 1	Oak Park
Packard, Bessie Eunice	LA $sp$	Benzonia, Mich.
Page, Lloyd Paul	LA 1	Marion
Page, William Thomas	CE $sp$	Springfield
Paine, Harry Allen	SS	Bement
Paisley, Ada Mae	LA 3	Champaign
Palmer, Cyrus Edmund	AE 3	Augustus
Palmer, Eckels	CE 1	Princeton
Palmer, John William	L 3	Neligh, Neb.
Palmer, Lloyd Elden	AE 1	Kemper
Palmer, Wayne Platter	AE 2	Chicago
Palmer, William King	Agr 1	Berwin
Palmquist, David Roy	EE 3	Moline
Palmquist, Robert Eric	AE 2	Chicago Heights
Pankow, Charles John	A 1	Elgin
Parcel, Herbert Leonard	SS	Westfield
Parker, Gilbert Walter, Jr.	CE 3 SS	Champaign
Parker, Helen Lucy	LA 2	Champaign
Parker, Jacob William	Agr sp	Carrollton
Parker, Vilas	Ch 3	Oak Park
Parkhurst, Matthew Simpson	Agr 2	Evanston
Parkins, Frank Elmer	ME 3	Chicago
Parkinson, Chester Bumgardner	Md 1	Centralia
Parkinson, Frank Edward	Agr 1	Mt. Carmel
Parks, Albert Henry	EE 2	Ottawa
Park, Ralph Milton	BLA 1	Urbana
Parmely, James Clyde	ME 4	Urbana
Parr, Elizabeth	LA 3	Urbana
Parrett, Florence Mae	LA 4 SS	Homer
Parrett, Henry Tullis	BLA 1	Wenona
Parrish, Jessie Lee	SS	Roseville
Parsons, Harry McLauchlan	Agr 2	Chicago
Partridge, Hugh Richard	$L^{2}$	Sterling
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Partridge, Newton Lyman	Agr 1	Chicago
Patrick, Harry Evans	Agr sp	Swift
Patton, Alfred Ray	L 3	Clarence
Patton, Carrie Cade	LbLA 1	Urbana
Patton, David Collins	ME 4	Chicago
Patton, Elsie	LA 2	Urbana
Paul, Harry John	ME 4	Chicago
Peace, Cameron Albert	Agr 1	Ottawa
Pearson, William Henry	LA $sp$	Lena
Peck, Anna Lorine	LA 2	Champaign
Peck, Gertrude Lila	Mus sp	Chicago
Pegram, William Alexander	ME 4	Lincoln
Peine, Paul Charles	BLA 4	Minier
Peloquin, Pierre Joseph	RE 4 SS	Chicago
Pemberton, Carlysle	ME 4	Oakland
Pence, Owen Earle	LA 4 SS	Hamilton
Penn, Henry	CE 4	Chicago
Pennebaker, Eugene Strode	CE 4	Cairo
Percival, Marion Louise	LA 2	Champaign
Percival, Olive Belle	HSAgr 4	Urbana
Perez, Carlos Santiago	AE sp SS	Saltillo, Mex.
Perkins, Albert Monroe	BLA 4 SS	Urbana
Perkins, Mabel Blanche	S 1	Easton
Perkins, Reba Niles	LA 4 SS	Urbana
Perrott, Richard Henry	SS	Mt. Pulaski
Perkins, Tom Cheney	CE 1	Chicago
Perry, Victor Eben	L $sp$	Urbana
Perry, Winifred Almina, A.B., 1908	LA $sp$	Urbana
Pershall, Edward Estes	ChE 3	East St. Louis
Persons, Myron Bowen	ME 1	Denver, Col.
Pervier, Carrie May	HSLA 1	Sheffield
Peterson, Earle Sherman	ME 3	Nunda
Peterson, George Louis	Agr sp	Cerro Gordo
Peterson, Harold	CE 2	Chicago
Peterson, Harry Viggo	ME 4	Racine, Wis.
Peterson, Herbert Christian	CE 1	Chicago
Peterson, John Bernard	Ch 4	Oak Park
Peterson, Ralph Gerald	CE 2	Chicago
Petrea, John Nelson	EE 1 SS	Centralia
Petrie, David	BLA 4	Mason City
Petrie, David Cook	Agr 4	Boise, Ida.

Petry, Charles Aloysius	CE 3	Chicago
Pfeffer, Harold Sylvester	A $sp$	Lebanon
Pfeiffer, Alto Frank	Agr sp	O'Fallon
Pfeil, Raymond Frank	Agr sp	Free port
Pfingston, Henry Frederic	SS	Stewardson
Phares, George Alfred	Agr sp	St. Joseph
Phares, Mary Josephine	SS	St. Joseph
Phelps, Cyrus Earle, Jr.	CE 3	Washington, D. C.
Phelps, Sarah Latimer	LA 1.	Peoria
Philleo, George West	ME 2	Urbana
Phillips, Albert Harold	Agr sp	Aurora
Phillips, John Breen	S 3	Sullivan
Phillips, Leona Etna, Ph.B.,		
(DePauw Univ.), 1905	Lb 4	Bloomfield, Ind.
Phillips, Lester Leroy	EE 3	Sterling
Phipps, Charles Rush	Agr 3	Charleston
Pickett, Roy Ernest	AE 3	Chicago
Pierce, Audrey Oretha	LA 1	Gifford
Pierce, Donald Alfred	EE 4	Watseka
Pierce, Laura Estelle	LA 4	Gifford
Pierce, Leonard George	EE 4	Elgin
Pierce, Thirza May	LA 1 $SS$	Elgin
Pierson, Lloyd Miland	CE 1	Spring Valley
Pierson, Stephen Norton	Agr 2	Chicago
Pinckney, Frank Loyer	S 4 $SS$	Pontiac
Piper, Clark Culbertson	Md 1	Sumner
Piper, Harry Bruce	EE 1	Sumner
Pistorius, Bernhard Henry	CE 3	Chicago
Pittman, Thomas Merritt, Jr.	CE 3	Henderson, N. C.
Pletcher, Erno Baker	LA 3	Rochester, Ind.
Pletcher, Lyle Jay	Ch 1	Rochester, Ind.
Pletcher, Opha Belle	LbLA 3 S	8 Rochester, Ind.
Plochman, Carl Morris	EE 1	Evanston
Plumb, Ermin Fawcett	LA 4	Streator
Poe, Fred Madison	ME 4	Urbana
Pogue, Stanley Landon	LA 1	Sullivan
Polkowski, Harry	CE 3	Chicago
Pollard, Albert Rumble	S 4	Chicago
Pollock, Albert David	ME 2	Cambridge
Pollock, Charles William	EE 3 SS	Seaton
Pollock, Harry Robb .	SS	Clinton

Pollock, James, Jr.	Agr 1	Cambridge
Pomeroy, Sarah Ada	LA $sp$	Chicago
Pond, Ethel Claire	S 4	Sycamore
Pond, Frank Hayward, Jr.	ME 3	Chicago
Ponder, Ray Boyd	ME 3	Urbana
Ponder, Wilbur Homer	ME 2 SS	Urbana
Ponder, Wilma Edith	LA 2 SS	Urbana
Ponzer, Karl Lewis	CE 4 SS	Henry
Poor, Hattie Mildred	LA 2	Streator
Popp, Paul Fred	ME 3	Chicago
Popperfuss, Henry John	CE 4	Chicago
Porter, Agnes Nellie	LA 1	Olney
Porter, Francis Marion, B.S.,		
(Ohio Univ.), 1907	SS	Circleville, O.
Porter, George Winerals	CE 1	Belvidere
Porter, Harry Boone	EE 1	Dwight
Porter, Joseph Richard	Agr sp	Circleville, O.
Porterfield, Arthur Tucker	AE 4	Urbana
Porterfield, Willard Blaine	S 1	Fairmount
Postel, Allan Julius	BLA 3	Mascoutah
Postlewait, Harriet Leotine	LA $sp$	Urbana
Poston, Emmett Vincent	S 3	Martinsville, Ind.
Potter, Ellis J	A 2	Morrison
Potter, Leroy Talmage	Agr sp	Jacksonville
Potter, Mary Katherine	SS	Chicago
Potter, Matthew Bonar	BLA 2	Morrison
Potter, Nelle Edith	LA 1	Champaign
Potter, John William	Agr 2	Champaign
Potter, Ralph Sydney	SS	Fairbury
Powel, Ellen Catherwood	LA 3	Taylor ville
Powell, Alexander James	Agr 3	Forrest
Powell, Horatio Nicoles	EE 1	Hubbard Woods
Powers, Elmer Walter	$\delta S$	Loda
Powers, Earl Warren	EE 2	Barrington
Powers, James Michael	L 3	Mackinaw
Prather, Tirrie Ostin	L 1	Newton
Pratt, Fred Cameron	EE 4	Webb City, Mo.
Preston, Frank Davis	LA 4 $SS$	Carthage
Price, Harry Brusha	SS	Ashton
Price, Helen Louise, B.L.S., 1900	SS	Champaign
Prickett, Alva Leroy	BLA 2	Litchfield
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Deindinille Francis Issuel	CTE A	C7. *
Prindiville, Francis Joseph	CE 2	Chicago
Prindle, Merwin Logsdorn	AE 1	Chicago
Pritchett, Betty Huston, A.B.,	77. /	77
(Pritchett Col.), 1903	Lb 4	Independence, Mo.
Pritzlaff, Charles Philip	CE 1	Chicago
Proehl, Paul Fred	AD 3	Chicago
Prout, Harold Bertram	BLA 4 SS	Wheaton
Pruyn, Clara	LA 4 SS	Keithsburg
Pugh, Ada Roberta	SS	Champaign
Purcell, Charles Alexander	Agr 2	Evanston
Puster, Dumas Eugene	Agr sp	Chicago
Putnam, Dorothy	LA 2	Oak Park
Putnam, Leigh Burtis	S 3	Oak Park
Putnam, William James	EE 4	Pana
Quayle, Robert Harwood	LA 4	Oak Park
Quinn, Robert John	ChE 2	Chicago
Quisenberry, Lawrence	Agr 1	Atlanta
Raffin, Isador	CE 2	Waukegan
Rahe, Oscar Henry	LA 2	Madison, Ind.
Railsback, Fred Harold	L 3	Hopedale
Ralston, Hugh Aster	LA 1	Rock Island
Ralston, Stuart Albert	EE 3	Caledonia
Ramey, George Erwin	A 3	Champaign
Ramey, Robert Henry	ME 1	Champaign
Ramp, Waldow Lester	Agr 3	Knoxville
Rand, Charles Claffin	Cer 1	Lombard
Randall, Arthur Edwin	CE 3	Cambridge
Randolph, Otto Coffeen Fitz	CE 2	Chicago
Rankin, Earl	EE 1	Vermont
Ranson, Ethel Alice	LA 1	Havana
Ranson, George Andas	ME 3 SS	Havana
Rapp, Lawrence Mortz	CE 1	Chicago
Rascher, Charles	ChE 2	Chicago
Rasmussen, Mary Cecil	SS	Table Grove
Rathbun, Acors Earl	Agr 3	Glen Ellyn
Rathbun, Robert Wiltshire	Agr sp	Preemption
Rathfon, Sydney Clen	AE 2	Chicago
Rathjens, George William	CE 4	St. Paul, Minn.
Rauch, Paul Vincent	A 1	Wichita, Kan.
Ray, Bryne L	LA 1	Mason City, Ia.
Ray, Robert Daniel	ME 3	Chicago
nay, nobert Daniel	M L 3	Unicago

Ray, Robert William	RE 3 SS	Blue Mound
Real, Raymond George	L 2 .	Effingham
Reardon, Francis Gerald Griffin -	LA 4 L 1	Delavan
Redborg, Carl Eric	BLA 2	Batavia
Redden, Jessie Mabel	LA 1	Danville
Reddersen, Edward Ernest	RE 1	Chicago
Redhed, William Seed	BLA 4	Tolono
Reed, Chester Otis	Agr 3	Pittsford, N. Y.
Reed, Erwin Ambrose	CE 1	Chicago
Reed, Frank Walker, Ph.D.,	LA $sp$	Urbana
(Univ. of Va.), 1907		
Reed, Lester A	Agr sp	Jacksonville
Reeder, Claude Hazlett	EE 4	Watseka
Reeves, Harry Payne	LA 2	Urbana
Reeves, Herman Thornton	A 1	Citronelle, Ala.
Reeves, Howell Hiram	RE 4	Champaign
Reeves, Walter Irving	ME 2	Moline
Reid, Mollie	LA 3 SS	Ozark
Reiger, Harry Jasper	A 4	Spring field
Reigle, Earl Vinton	ME 2	Canton
Reimert, Robert Rutter, Jr.	AE 1	Chicago
Rein, Fritz	Agr 2 SS	Gilman
Reinhardt, Ruth Gladys	LA 1	Kansas City, Mo.
Reisner, Charles Leonard	Agr 1	Sterling
Reitz, Walter Richard	ME 1	Chicago
Reller, Erna Marie	LA 3	Beardstown
Remick, Andrew Bernard	L 3 $SS$	Trenton
Renard, George Albert	L 2 $SS$	E. St. Louis
Renich, Amanda Barbara	LA 4	Woodstock
Renich, Katherine Louise	LA 3	Woodstock
Renich, Mary Emma	S 3	Woodstock
Renner, Mary Fay	LA 3	Urbana
Renner, Wendell Phillips	BLA 4	Urbana
Renner, Willey Allene	SS	$\cdot$ Urbana
Rennhack, Edward Charles, Jr.	ŁE 1	Chicago
Rentfro, Percie Cobbs	L 3 $SS$	Monticello
Renz, Myrtle Anna	LA 3	Henning
Rest, Sarah	SS	Chicago
Retz, Stella Mae	LA 1	Ottawa
Reum, Hope Edwin	CE 1	Chicago
Rexwinkle, Daphne Margaret	Mus 1	Vandalia

Rexwinkle, Fred DeLong	RE 3	Vandalia
Reynolds, Alice Grey	LA 1	Chicago
Reynolds, William Alonzo, Jr.	LA 1	Milton
Rhoads, Merle Margaret	Mus sp	Urbana
Rhyne, Charles Leon	CE 1	Princeton
Rice, Charles Clyde	CE 3	Bone Gap
Rice, Grover Cleveland	S 1 SS	Irving
Rice, James Edward	SS	Greenview
Rice, Vilas E	Agr 1	Disco
Rich, Ernest Albert	LA 2	Washington
Rich, Roy Harrison	L 1	Spring field
Richards, Keene	EE 2	Chicago
Richards, James Verney	AE 4	Moline
Richardson, Benjamin Franklin	Agr sp	Sidell
Richardson, Carl Barrows	CE 4	Tampico
Riche, Arthur Louis	EE 1	Charleston
Richie, James King	EE 4	Georgetown
Richie, Wilson Leaverton	S 2	Georgetown
Richmond, George Bradford	Agr sp	Elburn
Richmond, Lilah Louise	LA 1	Prophetstown
Ricketts, Clara Agnes, B.S., 1909	Lb 4	Champaign
Ricketts, Mabel Duncan	SS	Champaign
Riddle, Lilian	HSLA 2	Mattoon
Ridgely, Temple Elliott	BLA 2	Springfield
Rietz, Nelle Melissa	S 2	Port Washington, O.
Rife, Willard Orrin	L 1 $SS$	Lena
Rigdon, Fannie	SS	Urbana
Riggen, Hattie Ethel	HSAgr 1	Champaign
Righter, Edwin Brown	EE 4	Saunemin
Righter, Nellie Pauline	LA 1	Champaign
Riner, Imogene	HSAgr sp	Hinsdale
Rives, Oakley Beebe	Agr 4	Rock Bridge
Roark, Raymond Jefferson	CE 3	Richmond, Ky.
Roark, Tom Louis	BLA $sp$	Macomb
Robbins, Frank Anson, A.B.,	•	
(Yankton Coll.), 1907	EE 4	Orient, S. Dak.
Robbins, Joseph	EE 4	Congress Park
Roberts, Charles Simeon	L 1	Chicago
Roberts, Chester Corwin	Agr 2	Chicago
Roberts, Elmer	Agr 1	Urbana
Roberts, Francis Newell	LA 1	Bloomington
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Roberts, Harry Vivian	CE 3	Morning Sun, Ia.
Roberts, Howard Daniel	Agr sp	Peoria
Roberts, Lois Madeline	SS	Decatur
Roberts, Mary Hilda, A.B.,		
(Ind. Univ.), 1902	LA $sp$	Wabash, Ind.
Roberts, Nellie Read	LA 1	Champaign
Robertson, Eva Love	LA 1	Morrison
Robertson, Louis Harry	EE 1	Blue Island
Robinson, Anna Belle	HSLA 3	Granville
Robinson, Florence Elinor	LA 2	Urbana
Robinson, Grace May	LA 2	Gilman
Robinson, Kendall Edward	CE 4	Rockford
Robinson, Paul Thomas	Agr 2	Springfield
Robinson, Robert Johnson	Agr sp	Gilman
Robinson, Thomas Leo	ME 2	Streator
Rockwell, Louis	L 3	St. Charles
Rockwell, Van	L 1	St. Charles
Rodgers, Charles Henry	Agr sp SS	Brownsville
Roebuck, Harold Darius	EE 1	Newton
Rogan, Octavia Fry, A.B.,		
(Univ. of Tex.), 1908	Lb 4	Austin, Tex.
Rogers, Anna Sophie	LA 3	Bushnell
Rogers, Dick Oglesby	ME 1	Hume
Rogers, Don Haney	Agr sp	Preemption
Rogers, William Turner	CE 3	Hume
Rohrbach, Eva Isabelle	HSAgr 1	Urbana
Rohrbough, Frank Charles	CE 1	DuQuoin
Rohrer, Carl James	Agr 3	Canton
Rolfe, Amy Lucile, A.B., 1908	Mus sp	Champaign
Rolfe, Mary Annette, A.B., 1902	SS	Champaign
Rolphe, Earl Edwin	EE 1	Savanna
Rollo, Robert Pennan	L 1	Murphysboro
Roman, Frank Louis	ChE 4	Arcadia, Mo.
Roman, Lloyd Ellsworth	CE 1	Decatur
Roman, Walter	LA 2	Granite City
Romero, Carlos Nicholas	Agr 1 SS	Chihuahua, Mex.
Romig, Frank G	ME 4 SS	Coffeyville, Kan.
Roosa, Miller S	Agr 1 SS	Pittsfield
Rooth, Carrie Lee	LA 1 SS	Joy
Ropp, Pearl Iola	LA 1	Carlock
Ross, Charles Kelso	Agr 1	Newton

D. TW. shall Towns	Mus 4	Champaign
Rose, Elizabeth Irene	M 4 S 4	Спатранун Gays
Rose, Webster Barclay	RE 4 SS	Champaign
Rosecrans, Bennett Paine	CE 3	Waukegan
Rosencrans, Fred Barnum	LA 2	Evanston
Rosenberg, Ira	CE 2	
Ross, Clarence Samuel		Independence, Kan. White Hall
Ross, Ernest Frank	EE 1	
Ross, Glenn Thompson	BLA 1	Rossville
Ross, Louise Henrietta	LA 4	Evanston
Ross, Martin Winter	A r 1	White Hall
Ross, Roy Meneley	BLA 1	Rossville
Rossbach, Ernest Jerome	MnE 2	Chicago
Rosset, Abraham	CE 1	Chicago
Rottger, Russell Curtis	BLA 1	Springfield
Rowland, Claude Kerlin	L 2	Martinsville
Royce, Julian Arthur	CE 4	Naperville
Royer, Florence A	LA 1	Chicago
Ruby, Irving Randolph	AE 1	Yorkville
Ruckel, John Garland	Agr 1	Spring field
Ruehe, Harrison August	Agr 3	Waukegan
Rugg, Daniel Maltby	ME 4	Champaign
Rule, Carrie Le Verne	LA 4	Cairo
Rumery, Fay	Agr 2	Oregon
Rumsey, Darce F	L sp	Golconda
Rundles, Earl	CE 2 SS	Huntertown, Ind.
Rundles, Guy	L $sp$ $SS$	Huntertown, Ind.
Rundles, John Clinton	Agr 3	Huntertown, Ind.
Rundquist, John Martin	CE sp	Moline
Runk, Oliver	ME 2	Sterling
Runkel, Homer	ChE 3 SS	Greenup
Rusher, Floyd Elza	Agr 2	Sullivan, Ind.
Ruskamp, William Henry	CE 3	Quincy
Russell, John Tyndale	AE 3	Denver, Colo.
Russell, Lewis Melvin	BLA 3	Pana
Russell, William Emmet	BLA 3	Decatur
Ruth, Thomas Lenor	LA 1	Morrison
Rutledge, George	S 4	Champaign
Rutledge, William Askins	Cer 3 SS	Evanston
Ryder, Olive Marie	LA sp	Sandwich
Ryther, Henry White	ME 1	Chicago
Sabel, Walter Frank	A 1	Evansville, Ind.
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Sack, Philip, Jr.	A 1	Sutton, Neb.
Sadler, Walter Clifford	CE 1	Elgin
Sage, Charity Edenia	HSAgr	1 Ottawa
Sailor, Ira Carl	Agr sp	Cissna Park
Salisbury, Ethel Imogene	LA $sp$	Woodstock
Samter, Miriam Lucille	HSAgr	1 Austin
Samuels, Thomas Walter, A.B., 1909	SS	Carrollton
Sandall, Ernest Eugene	Agr 2	Burlington
Sandberg, Reuben Lawrence	CE 3	Chicago
Sanders, Laura Marie	HSS 1	Pana
Sandifur, Claude Williamson, A.M.,		
1909	SS	Champaign
Sandmeyer, Eugene Wilbur	Agr sp	Chenoa
Sargeant, Charles Frederick	ME sp	Glencoe
Sargeant, Southworth Samuel	L 1	Geneva
Sargent, Chester Frederick	SS	Glencoe
Sato, Toshio	AE 2	Higasiku, Osaka, Japan
Satterfield, Raymond Pool	CE 2	Mt. Vernon
Sauls, Dixie Jean	LA 1	Magnolia, Miss.
Saunders, Harry Ogden	EE 2	Springfield
Savage, Arthur Dale	Agr 1	Champaign
Savage, Lillian Waters	LA 1	Belleville
Savage, Richard Webb	EE 1	Monticello
Sawtell, Willam Amos	Agr 4	Chicago
Sawyer, Albert Butler, Jr.	Agr 4	Norborne, Mo.
Sawyer George Pillsbury	EE 3	. Monmouth
Sayers, Gilbert Arthur	Agr sp	Orland
Sayre, Charles Bovett	Agr 1	Chicago
Scales, Walter Howard	AE 1	Ft. Worth, Tex.
Scanlan, Jack Addison	RE 3	Cricago
Schaeffer, Delmont Louis	CE 1	Trenton
Schaeffer, Orville Vallette	S 1	Springfield
Schafer, Charles Henry	EE 1	Mt. $Carmel$
Schalck, Edward Michael	LA sp	Cnicago
Schaller, Robert Herman	Ch 1	Mendota
Schaller, William Fred	EE 4	Mendota
Schance, Theodore James	EE 2	Cherry Point
Scheid, Jacob Philip	SS	Whitehall
Scheidecker, Glenn W Smiley	EE 1	Sycamore
Schell, Edward John	CE 3	Keokuk, Ia.
Schellhous, Harrison Edward	SS	Constantine, Mich.

Schenck, Chester	EE 2	LeRoy, Kan.
Schickedanz, Simon Aaron	ME 3	Chenoa
Schill, Gertrude Bender	LA 3	Chicago
Schlink, Frederick John	ME 2	Peoria
Schmidt, George John	CE 1	Peoria
Schmidt, Edward Kraft	Agr 1	Aurora
Schmidt, Lorentz	A 1	Clyde, Kan.
Schmitz, Erwin Anthony	EE 2	St. Louis, Mo.
Schneider, Bertha Mabel	LbLA 2	Columbus, O.
Schneider, Julian Mortimer	A 1	Chattanooga, Tenn.
Schnellbach, John Francis	MSE 1	Dixon
Schnetzler, Charles Henry	A 4	Fairbury
Schnoor, Herman William	A 3 $SS$	Dalton
Schock, William George	CE 3 SS	Tower Hill
Schoeffel, George William	BLA 4	Freeport
Schoessel, Carl Arthur	ME 1	Rock Island
Schofield, Gayle	Agr sp	El Paso
Scholes, Walter F	Agr 1	Chicago
Scholl, Clarence	ChE 1	Watseka
Scholnitzky, Isidore Morris	CE 3	Odessa, Russia
Scholz, Alexander Louis	CE 2	Chicago
Schoolcraft, Placie Lafayette	L 1 SS	Chester
Schreiber, Allen Bruno	A 1	St. Joseph, Mo.
Schreiber, Otto William	LA 4	Chicago
Schriner, Emma Ellen	SS	Peoria
Schrodt, John Robert	Agr 1	Keensburg
Schroeder, George Fell	Agr 1	Peotone
Schroll, Emma Eleanor	HSLA 1	Decatur
Schucker, Rudolph Wester	AD 1	Mt. Carmel
Schueler, Julian Louis	ChE 2	Peoria
Schuettler, Arthur Frederick	Agr sp	Chicago
Schulzke, Otto Fred	Ch 4	Springfield
Schundner, Leo Vincent	EE 2	Savanna
Schuster, Fred Arnold	Agr sp	LaGrange
Schuster, George	ME 4	Lincoln
Schwartz, Lloyd	CE 3	Golden
Schwartz, Otto Julius	Agr 1	Maywood
Schwartze, Erich Wilhelm	Md 2	Cairo
Schwarzkopf, Grace Marguerite	HSLA 1	Chicago
Schweppe, Henry Nelson	Cer 1	Alton
Scott, Edith	Md 1	Harrisburg
Score, Laten	III W I	Harrisourg

Scott, Ernest Somers	EE 1	Oak Park
Scott, Mrs. Frances	SS	Champaign
Scott, Frances Marie	$L\mathring{A}$ 3	Jacksonville
Searle, John Clinton	LA 3	Geneseo
Scott, Lucian W	LA 4	Bement
Scott, Norman Bruce	S 2	Chicago
Scott, Ralph Cleland	BLA 2	Berwyn
Seaman, Katherine	LA 2	Oak Park
Searle, John Clinton	SS	Geneseo
Sears, Arthur Lewis	SS	Tiskilwa
Sears, Rose Roberts	Lb 4	Chicago
Seese, Robert St. Clare	EE 2	Petersburg
Segura, Valeriano	SS	Iloilo, P. I.
Seib, Eugene Charles	EE 3 SS	Belleville
Seidenberg, Nathan	LA 1	Peoria
Seidensticker, Oswald George	Shears AE 1	Chicago
Seifried, John Francis	CE 2	Maywood
Seiler, George William	ME 1	Woodstock
Seiler, Otto Erwin	LA 2	Woodstock
Seip, Ernest Walter Joseph	ME 1	Chicago
Seiter, Peter Wolff	CE 4	Chicago
Sekine, Sentaro	ME 1	Saitama, Japan
Sellards, John Armstrong	LA 3	Champaign
Sellards, William Heine	SS	Champaign
Selliken, Maude Andre	SS	Chicago
Sendenburgh, Edith Irene	LA 1	Champaign
Sercombe, Rupert John	RE 3	Elgin
Sesler, Philip Ray	L 2	Pontiac
Settlemire, Wilbur Lynn	Agr 4	Litchfield
Severinghaus, Milton George		Chicago
Sewell, Earl Farris	CE 1	Normal
Sewell, Sidney Isaac	CE 1	Belvidere
Seymour, Curtis T	Agr 1	Champaign
Seyster, Mildred Clayton	S 2	Kempton
Shackell, Bessie Estelle	LA 4	Urbana
Shade, Imogene, A.B., 1907	SS	Bloomington
Shapiro, Benjamin	CE 4	Chicago
Shapiro, Isidore Max	BLA 2	Chicago
Shapland, Cecil James	CE 2 SS	Saunemin
Shapland, Earl Page	ME 1	Saunemin
Sharp, Bertha Lee	LA 3 SS	Urbana

Sharp, Clara Belle	LA 2	Elgin
Sharp, Ethel	SS	Urbana
Shaw, Ben Bruce	RE 3	Canton
Shaw, Edgar James	CE 4	Chicago
Shea, Frances Gertrude	SS	Champaign
Shear, Charles Vincent	BLA 1	Jennings, La.
Sheardown, Rex Winton	A 1	Chicago
Shearer, Andrew Willis	Agr sp	Henry
Sheay, John Patrick	Agr 2	Bement
Sheets, Frank Thomas	CE 1	Spring field
Sheldon, Maude Lillian, A.B., 1903	SS	Sharpsburg
Shelton, Wilma Loy	LA 1	Terre Haute, Ind.
Shen, Wen Yu	Agr sp	Shangtung, China
Shepard, Karl Joseph	Agr sp	La Fox
Shepperd, James Douglas	LA 1	Peoria
Sheriff, Bertha Delphine	LA 2	Joy
Sherry, Leroy Briggs	$S \neq SS$	Pasadena, Cal.
Shewade, Vinayak Yeshawant	ChE $sp$	
	Ada B	Bazar Indore, India
Shewhart, Walter Andrew	S 1	New Canton
Shields, Charles Culver	ME 4	Highland Park
Shields, Dominic Harold	CE 2	Harvard
Shields, Raymond Joseph	CE 4	Harvard
Shinaberry, Cliff Rood	SS	Fredericktown, O.
Shinn, Elmer Barkalow	EE $sp$	Mattoon
Shinn, Florence	HSAgr 2	Mattoon
Shinn, Harry Ertel	CE 4	Mattoon
Shinn, Robert Erwin	EE 1	Petersburg
Shipley, Henry Ellis	L 3 $SS$	Petersburg
Shippy, Henry Best	Agr 1	Chicago
Shirk, William Andrew	SS	Tuscola
Shirley, Orin Earl	E£ 4	Paris
Shively, Jerome Davison	BLA 1	Champaign
Shklowsky, Arcadie Jacob	CE 4	Kieff, Russia
Shoemaker, Fred Glen	EE 1	Abingdon
Shonkwiler, Horace Avery	Agr 1	Monticello
Shrader, Justin Winfred	LA 3	Mattoon
Shreffler, Franc Ella	HSAgr 1	Kankakee
Shu, Seng Kah	ChE 2 SS	
,	Kwei-yon,	Kwei-chow, China
Shuck, Otto Charles	Agr sp	Monticello
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Shuck, Roy Wesley	Agr sp	Monticello
Shulters, John Raymond	LA 4	Bristol, N. Y.
Shumway, Nona Emma	Mus 1	University Park, Col.
Shupe, Chester Benton	SS	Paloma
Shupe, Lester Clyde	Agr sp	Paloma
Shute, Robert Lee	EE 4	Ottawa
Shutts, Marjorie Pauline	LA 1	Joliet
Sieberns, Lynn Callsen	L 1	Gridley
Sievert, Carl William John	ChE 1	Blue Island
Signor, Nellie Marie	LA 3	Urbana
Signor, Ruth Husted	LA 4	Urbana
Simmons, John William, Jr.	CE 3	Keithsburg
Simonini, Paul Charles	ME 3	Chicago
Simons, Alexander McDougall	EE 2	Chicago
Simons, Charles Leroy	Agr 3	Kentland, Ind.
Simons, George Augustus	A 2	Chaska, Minn.
Simpson, Arthur Moulton	ME 1	Morgan Park
Simpson, George Eric	Md 1	Chicago
Simpson, Sebastian Solon	SS	Camp Point
Simpson, William Archibald	AE 1	Denver, Col.
Sims, Jules Verne	LA 1	Sheridan, Ind.
Sinclair, Cecil Raymond	Agr sp	Prentice
Sinclair, John George	LA 3	Chicago
Sinha, Satyasaran	LA 3	Calcutta, India
Sinnett, Thomas Patrick, A.B., 1909	SS	Crescent City
Sisam, Mrs. Cora Hutton	LA 4	Urbana
Sisco, Frank Thayer	Ch 1	Clinton, Ia.
Skarstedt, Marcus	LbLA 1	Rock Island
Skiles, Mrs. Florence Marie	SS	Capron
Skiles, Frank Chambers	ME 1	Chicago
Skiles, James Roy	LA 3 SS	
Skinner, John Knox	S 3 SS	Iuka
Skoglund, Carl August	ME 1	Ishpeming, Mich.
Sladek, Victor Robert	AE 2	Chicago
Slaughter, William Bristol	ME 3	Berea, O.
Slawson, Harry Herbert	LA 4	Harvard
Slonneger, John Charles, Jr.	ME 1	Washington
Slonneger, Willis Daniel	LA 2	Washington
Slosson, Robert Lyon	CE 3	Park Ridge
Smart, Gertrude Mills, A.B.,		
(Northwestern Univ.), 1906	Lb 4	Payson

Smiley, Alfred James	CE 1	Sparta
Smith, Alfred Dale	EE 1	Champaign
Smith, Arthur Lloyd	S 4	Paw Paw
Smith, Bernard Bryant	AE 1	Bloomington
Smith, Cecil Weldon	CE 1	Clifton
Smith, Charles Cullen, Jr.	Agr 1	Chicago
Smith, Cloyd Clayton	EE 2	Mt. $Carroll$
Smith, Donald Jenks	EE 1	Chicago
Smith, Dwight Leod	EE 3	Free port
Smith, Earl LeRoy	L 1	Peoria
Smith, Edna Louise	A 1	Aurora
Smith, Elizabeth	SS	Broadhead, Wis.
Smith, George Harold	CE 4	Rockford
Smith, George Thom, Ph.D.,		
(Wooster Univ.), 1905	LA $sp$ $SS$	Champaign
Smith, Gerald Clark	Agr 1	Chicago
Smith, Gertrude Cane	HSLA 3	Evanston
Smith, Harold Gilman	RE 1	Monmouth
Smith, Harry Floyd	S 1	Paw Paw
Smith, Justin Cela	Agr sp	Dudley
Smith, K. Taliaferro	CE 1	Fayette
Smith, Lloyd Gaston	ME 2	Chicago
Smith, Lorrin Knapp	Agr sp	Honolulu, H. I.
Smith, Lynn Clarence	Agr 1	White Hall
Smith, Madeline Margretta	HSS $sp$	Grayville
Smith, Mark Eugene	LA 1	Anchor
Smith, Milton David	L $sp$	Chicago
Smith, Myrle Edwin	AE 1	Clinton
Smith, Orla Dean	Agr 1	Kewanee
Smith, Paul Ardell	ME 3	Plainfield
Smith, Paul McCorkle	SS	Normal
Smith, Robert, Jr.	ME 2	Chicago
Smith, Rose	S 3	Gibson City
Smith, Russell George	ME 1	Oak Park
Smith, Sarah Margaret	LA $sp$	Sharon, Wis.
Smith, Townsend Beverley	AE 1 SS	Evanston
Smith, Valentine, A.B., 1905	SS	Urbana
Smith, Volney Potter	Agr sp	Yorkville
Smith, Warren Elwood	SS	Thompson ville
Smith, William Carroll	Agr 2	Rankin
Sneeden, Edward Waide	Agr sp	Pitts field

Snell, Roland Clark	SS	Mowcaqua
Snider, Brainerd Clinton	LA sp	Kansas
Snider, Howard John	Agr sp	New Richmond, O.
Snodgrass, William, A.B.,		,
(Butler Coll.), 1892	LA sp SS	Champaign
Snook, Vera Jessie	LA 3	Ottawa
Snow, Charles Howard	Agr 4	Bloomington
Snow, Elbert Somers	LA 4 $SS$	Cody, N. C.
Snowden, Iva T	Agr sp	Mattoon
Snyder, Alden Eugene	Agr 2	Kankakee
Snyder, Earl Clifton	AE 1	Fulton
Soderberg, Andrew Frederick	AE 1	Florence, Wis.
Solfisburg, Christian Harrison	Cer 2	Aurora
Sonntag, Arthur Henry	EE 4	Alton
Sosa, Hermes A	SS	Asuncion, Paraguay
Soto, Rafael Arcangel	ME 2 SS	Sabana Grande, P. R.
Souers, Henry Clark	A sp	Des Moines, Ia.
Souers, Marshall Ankeny	BLA 1	Des Moines, Ia.
Spangler, Mary Margaret	LA 2	Joilet
Sparks, Myrtle Eva, A.M., 1890	SS	Ottawa
Sparks, Ray Carlisle	L 2	Macomb
Sparks, Richard Davenport	LA 2	Alton
Spaulding, Charles Herbert	ChE 2	Springfield
Spear, Samuel Bertice, Jr.	Agr sp	Mason City
Specht, Arthur Leo	EE 3 SS	Washington
Speedie, William Warren	S 2	Gibson City
Spellerberg, Leo John	Ch 3	Highland
Spencer, Charles Blakely	A 2	Champaign
Spencer, Edwin Rollin	LA 3	Rushville
Spencer, Mary Ethel	LA 1	Champaign
Spengler, Lewis Wilmer	CE 3	Roby
Sperry, Frank Earl	ME 4	Aurora
Sperry, Ralph Samuel	ME 1	Clarinda, Ia.
Spierling, Arthur Otto	ME 4	Chicago
Spitler, Clarke	BLA 1	Sullivan
Sponsel, John Gray	ME 3	Chicago
Sponsler, John McClure	ME 2	Aledo
Sprague, Villa Mae	HSLA 4 S	SS Lockport
Springe, Otto	Cer 2	St. Louis, Mo.
Springer, Jonas Robert	L 2	Robinson
Sprowls, Luna	S 1 $SS$	Gibson City

Spurck, Robert Michael	EE 4	Peoria
Stables, Floyd F	Ch 1	Lexington
Stadler, Arno Carl	EE 3	Bement
Stahl, Ambrose Carl	ME 2	Galena
Stahl, Clark Beebe	CE 3	Galena
Stahl, Elmer Roy	LA 4	Augusta
Stahl, John Rufus	SS	Dana, Ind.
Stakel, John Peter	ME 1	Menominee, Mich.
Staley, Anne Harwood	LA 1	Champaign
Stallings, Leland Stanford	LA 1	Granite City
Standish, Seymour	CE 4	Chicago
Stanton, James Grover	BLA 1	Wenona
Stapel, Amanda Emma	SS	Chicago
Stark, Frank Bernard	Agr sp	Chicago
Starkey, Perry Elmer	SS	Pesotum
Starman, Rudolph August	Agr sp	Quincy
Stearns, Albert Frank	ME 1	Champaign
Stebbins, Don Meade	A 1	Davenport, Ia.
Stedman, William Henry, Jr.	BLA 2	Champaign
Steely, Harlin Melville, Jr.	SS	Danville
Steiger, Rudolph	Agr sp	Delavan
Stein, Henry, Jr.	A 2	Murphysboro
Steinbreder, William John	ME 2 $SS$	St. Louis, Mo.
Steingard, Joseph Nathan	EE 3	Chicago
Stempel, Mrs. Grace Hoover	S 1	Urbana
Stephens, Carl	BLA 2	Champaign
Stephens, Laura Annetta	LA 4	Champaign
Stephens, Raymond William	BLA 1 $SS$	Urbana
Stephens, Robert Bruce	Agr 3	Champaign
Stephens, Samuel Joseph	LA 2	Sycamore
Stephens, Warren Russel	L 1	Urbana
Sterenberg, John Frederick	Agr 2	Fulton
Sterling, John Donald	EE 4	Maroa
Stevens, Gladys Agnes	Mus 1	Urbana
Stevens, Grace Esther	HSLA 4	Marengo
Stevens, Wentworth Holt	Agr 1	Urbana
Stevens, William Carley	EE 1	Marshall
Stevenson, Dana Hugh	Agr 2	Elvaston
Stevenson, James Ross	EE 4	Monmouth
Stevenson, James Vail	S 2	Streator
Stevenson, Milton Leonard	LA 4	Mason City

Stevers, Laura Antoinette	SS	Chicago
Stewart, Charles Hoeglan	Agr sp	Godfrey
Stewart, Edith Eliza	LA 3	Urbana
Stewart, Harold Burton	A 2	Seattle, Wash.
Stewart, LeRoy	L 2	Ava
Stewart, Melville Boicourt	MnE 4	Metropolis
Stewart, Myron Boyd	Agr 4	Chicago
Stewart, Robert Earle	EE 1	Dwight
Stice, Henry Sylvester	SS	Litchfield
Stiefel, Ira Brokaw	EE 2	Litchfield
Stillwell, John Franklin	Agr sp	Shelbyville
Stipp, Frank Vennum	CE 1	Champaign
Stitzel, Clarence Miller	Agr 2	Nelson
Stocker, Lawrence Orville	AE 2	Pana
Stoffel, Clara Verona	SS	West McHenry
Stokes, Alfred Edward	CE 2	Chicago
Stokes, John William	EE $sp$	Norris City
Stolle, Bonard Franklin	SS	Urbana
Stolle, Ida Josephine	SS	Urbana
Stoltey, Marie Jennie	HSLA 1	Champaign
Stone, Edison Harris	ME 4	Quincy
Stone, Mabel Gertrude	LA 2	Mattoon
Stophlet, Anna Clare	LA 1	Kansas City, Mo.
Storey, Carl Vawter	CE 1	Columbus, Ind.
Storr, Phillip August	CE 1	Chatsworth
Stough, Glenn Howenstein	MSE 1	Chicago
Stout, Frank Lewis	Agr 3	Glenarm
Straight, Gladys Lee	Lb 4	Fonda, Ia.
Straight, Ina Lue	LA 1 $SS$	Fonda, Ia.
Straight, Oma Ruth	HSAgr 1	Fonda, Ia.
Strait, James Foster	L 1	Roodhouse
Strasser, Rolland John	LA 3	LaGrange
Strauch, Bernard Andrew, A.B., 1908	L 3 SS	Chadwick
Strauch, Bertha Henrietta	HSLA 2	Chadwick
Strobridge, Thomas Ralph	CE 4	Manhattan
Strom, John	CE 4	Geneva
Stromquist, Walter Gottfrid, A.B.		
(Bethney Coll.), 1905	MSE 4	Lindsborg, Kan.
Strong, Earl Thomas	ME $sp$	Urbana
Stuart, Earl Kellogg	Cer 4	Springfield
Sturtz, Harry Kennell	L 1	Sterling

Styles, Edward	CE 2	Chicago
Sullivan, Charles Michael	EE 2	Free port
Sullivan, Ward William	LA 3	Champaign
Sumay, Felix Jose	CE 4 Bueno	s Ayres, Argentine
Summers, Dean Whaley	Md 1	Champaign
Summerville, Kate	Mus sp	Ottumwa, Ia.
Sundeen, Esther Louise	La sp	Moline
Sundeen, Ruby Marie	LA 3	Moline
Surman, Hugo Ewald	CE 4	Carlinville
Sussex, Richard Henry	CE 2	Abingdon
Sutherland, Edwin Marion	EE 3	Champaign
Sutherland, John Bruce, Jr.	AE 2	Seattle, Wash.
Sutherland, Leon Eugene	L 2	Chillicothe, Mo.
Sutton, Harold Isaac	Agr sp	Chicago
Sutton, Ralph Tilford	ArtLA sp	Urbana
Swan, Walter Edward	EE $sp$	Maroa
Swannell, Horace Conrad	EE 2	Kankakee
Swanson, Elder Louise	LA 4	Paxton
Swarthout, Elizabeth	LA 2	Fairchild, Wis.
Swartz, Nelle Leona	HSAgr 3	Urbana
Sweeny, Lawrence Dudley	Agr sp	San Francisco, Cal.
Sweet, John Franklin	A sp	Meade, Kan.
Sweitzer, Fred Earl	Agr 2	Morton
Swenson, Edwin Henry	CE 1	Chicago
Swern, Perry Weston	AE 3	Chicago
Swetlick, John Thomas	Agr 1	Holton, Kan.
Swett, Eiwell Payson	ME 1	Chicago
Swett, Lewis Edward	RE 4	Chicago
Swezey, Anne Davies, B.L.S., 1903	Mus sp	Champaign
Swift, Elizabeth Andrew, A.B., 1909	SS .	Bordentown, N. J.
Swift, Helen	HSAgr sp	Harlan, Ia.
Swigart, Alta Caroline	LA 4	Champaign
Swigart, Clara	Mus 1	Clinton
Swisher, Ele D	LA 4 SS	Wellington
Swisher, William James	CE 4	Mendota
Swits, Francis Howard	LA 4	Rockford
Symons, Thomas Augustus	Agr 2	Pcabody, Kan.
Szabo, Andrew John	L 1	Streator
Taber, Bayard Freeman	A 1	Urbana
Tack, William	CE 1	Savanna
Talbot, Mildred Virginia	LA 2	Urbana

Talbot, Robert Maitland	SS	Geneva
Talbot, Warren L.	LA 4	Roberts
Talcott, Mancel	CE 1	Waukegan
Tanner, Florence Mae	HSLA 4	Aurora
Tanquary, John Hansford	Md 1	Albion, Wis.
Tanquary, Maurice Cole, A.M., 1908	SS	Lawrenceville
Tarnoski, Alexander Stephen	AE 3 SS	Chicago
Tate, Fred Reeves	LA 4 SS	Vandalia
Tate, Harry Lawson	LA 3	Vandalia
Tate, James Alfred	Agr sp	East St. Louis
Tatge, Albert William	LA 2	Chicago
Taylor, Dalla Alice	LA 4	Champaign
Taylor, Ellis Roscoe	BLA 2	Princeville
Taylor, Everett Harvey	Agr 1	Lancaster
Taylor, George Alexander	L 2	St. Louis, Mo.
Taylor, Gertrude	HSAgr 2	Aurora
Taylor, Guy Clifton	CE 1	Assumption
Taylor, Harry Yates	Agr sp	New Berlin
Taylor, Hazel Emma	HSAgr 1	Chicago
Taylor, Marcus Prevost	CE 1	Alton
Taylor, Margaret	SS	Chicago
Taylor, Muzetta Annie	LA 1	Cairo
Taylor, Raymond Arthur	EE 2	Burlington, Ia.
Taylor, Scott Champlin	ChE 2	Bement
Taylor, Ward Hastings	LA 4 $SS$	Avon
Taylor, William Lincoln	Agr 2	Lancaster, Wis.
Teal, Lois Leota	LA 4	Arcadia, Ind.
Tear, Harry Clark	L 2	Warren
Tear, Julia Frances	HSLA 3	Chicago
Telford, Fred	SS	Oakley
Teng, Kwang-tang	Agr 2	Canton, China
Terrey, William Homer	EE 4	Viola
Terrill, Earl Bert	ME 2	Colchester
Terry, Harry Lincoln	A sp	Aurora
Thacker, Americus Robert	BLA $sp$	Vienna
Thatcher, George William	ME 3	River Forest
Thayer, Cleaver	BLA 1	Highland Park
Thayer, Henry Spafford	EE 4	Chicago
Theilen, Margaret Katherine	LA 1	Camp Point
Thomas, Ethel Claire	SS	Woodstock
Thomas, Frank Waters, A.B.		
(Indiana Univ.), 1905	SS	Urbana

Thomas, Minnie Etta	SS	Chicago
Thomas, Raymond Rogers	BLA 2	Rockford
Thomas, Volney Heath	CE 1	Milton, Ind.
Thomas, William Race	EE 1 SS	Decatur
Thome, John Paul	Agr 1	Jackson, Mich.
Thomen, Annie	HSAgr 1	Greenup
Thomen, Victoria	SS	Greenup
Thompson, Mrs. Beatrice Rogers	Mus sp	Urbana
Thompson, Charles Manfred, A.B.,		
1909	SS	Champaign
Thompson, Elmer John	Agr 4 SS	Nameoki
Thompson, Francis	SS	Pinckneyville
Thompson, George Brooks	EE 3 SS	Champaign
Thompson, Harwell Cloud	BLA 1	Harvey
Thompson, Herbert Percy	ME 2	Plainfield
Thompson, Milton Winfield	LA 4 $SS$	Ogden
Thompson, Samuel Arthur	L $sp$	Macomb
Thompson, Samuel Matthew	L 2	Harrisburg
Thompson, Stella McDowell	SS	Parkville, Mo.
Thompson, Thomas Eugene	Ch 4	Wilmette
Thomsen, John William	CE 4	Fulton
Thomson, Jennie Helen	SS	Paxton
Thoren, Joseph Nathaniel	CE 3	Lockport
Thorn, Mabel Elizabeth	S 1	Huntington, Ind.
Thrasher, Harry Maxwell	LA 3	Pontiac
Thrasher, Marvin Allen	SS	Atwood
Threlkeld, Clyde Hollis	ME 1	Urbana
Threlkeld, Gayle Hollis	HSAgr 1	Urbana
Tibbitts, Robert Keith	ME 2	Highland
Tietje, Ralph Earle	LA 4	Urbana
Tilley, Alfred Hudson	ME sp SS	Clinton
Tilson, Delbert Mayo	Agr 4	Williamsville
Tilton, George Francis	AE 1	Chicago
Tilton, Leon Deming	SS	E. St. Louis
Tilton, Nellie Ruth	LA 4 $SS$	Urbana
Timberlake, Erwin Bateman	CE 2	Chicago
Tinen, Kate Lucile	SS	Chicago
Tinen, John Victor	ChE 2	Chicago
Tipton, Nannie Pearl	LA 4	Macomb
Titchenal, John Nathan	Agr sp	Brighton
Titus, George Leiner	LA 1	Sullivan

Tobey, Harold Eugene	CE 4	Galcsburg
Todd, John Nelson	ME 2	Tabor, Ia.
Tohill, Louis Arthur	SS	Flat Rock
Toland, Jessie May, A.B., 1908	SS	Urbana
Tolman, Hugh Harrison	BLA 2	Red Oak, Ia.
Tomlin, Roscoe	Agr sp	Easton
Tompkins, Carrie E	LA $sp$	Downs
Tooker, Leroy B	SS	Harvard
Torl ert, Lola Murduck	Mus 1	Zanesville, O.
Trobaugh, Grace Edith	LA 1	Murphysboro
Torgerson, Edward Fritchoff	Agr 2	Chicago
Torrey, Arthur George	L 1	Elgin
Tourtelot, John Hopkins	EE 2	Palos Park
Trams, Albert Francis, A.B., 1905	SS	Loda
Travers, Sylvan Morse	BLA 3	Fairview
Treakle, Jesse Fell	S 3 SS	Peoria
Treat, Margaret Jane	LA 2	Harvard
Treuthart, Lloyd Sidney	CE $SS$	Galesburg
Trimble, Carleton Thompson	BLA 3	Trimble
Troup, Harold Joseph	BLA 1	Kankakee
Trowbridge, Myrtle	LA 1	Green Valley
Truitt, Henry	Agr 3	Chillicothe
Truman, Jonathan Hall, Jr.	EE 3	Bushnell
Tryon, Charles Leon	CE 3	Woodstock
Tsiang, Khoo-din Su-peh	LA 4 $SS$	Shanghai, China
Tucker, Phoebe Caroline	LA 1	Roseville
Tucker, William Benjamin	Md sp	Lamar, Mo.
Tumbelson, Alvin Truesdell	A 4	Ankeny, Ia.
Turell, Vera, A.B., 1906	SS	Champaign
Turk, Bella Selma	LA 3	Litchfield
Turk, Elkan	LA 4	Litchfield
Turley, Robert Edgar, Jr.	CE 1	Richmond, Ky.
Turner, Bessie Irene	LA 1	Loda
Turner, David Adolph	Agr sp	Chicago
Turner, Ernest DeWitt	Agr 2	Wenona
Turner, Frank	Agr sp	DuQuoin
Turner, Herbert Michael	EE 4 $SS$	Hillsboro
Turner, Rhodolphus Kibbe	Agr 1	Butler
Turner, Walter Carlyle	BLA 1	Atlanta
Turner, Walter Van	ME 2 SS	Toledo, O.
Turnock, Lawrence Charles	ChE 4	Elkhart, Ind.

Tuttle, James Dee	S 1	McLean
Twist, Clarence Cicero	Agr 3	Rochester
Twist, John Francis	Agr 3	Rochester
Tyler, Charles Vernon	CE 3	Plano
Tyler, Irvin Francis	CE 1	Savanna
Underhill, Harold Wertz	A 1	Onawa, Ia.
Unzicker, Earl Morris	AE 1	Normal
Urbain, Leon Francois	A 4	DuQuoin
Utsurikawa, Nenozo	A 1	Iwashiro, Japan
Vail, Frank Miller, Jr.	Agr sp	
Valentin, Howard DeWitt	ChE 1	River Forest
Vallejos, Emiliano Elizeche	Agr sp	SS Asuncion, Paraguay
Vance, Sidney Burman	SS	Brownstown
Van Cleve, Arthur, A.B.	L 2	Champaign
(James Millikin Univ.), 1908		
Van Cleve, Edith Joy	LA 2	Champaign
Van Cleve, Laura Lillian	LA 2	Murphysboro
Van de Greyn, Bert	MSE 3	Excelsior Springs, Mo.
Vandercook, Susan	SS	Springfield
Van Dervoort, Jameson	CE 3	Chicago
Vandervort, Franklin Cady, Jr.	ME 1	Blooming ton
Vandervort, Isabel Morehouse	LA 3	Blooming ton
Van Deursen, Florence	S 1	Dolton's Station
Van Deusen, Archibald Beebe	RE 2	Evanston
Vandeveer, Harrie Earl	EE 2	Edinburg
Van Doren, Robert Guy	A 4	Urbana
Van Etten, Claire Trum'oo	L 1	Mendota
Van Gundy, Claude	EE 2	Ellsworth
Vaniman, Roy L	EE 2	Girard
Van Kirk. John Albert	Md 1	Leiters, Ind.
Van Pappelendam, Bernard Car-		· .
lyle	ME 4	Keokuk, Ia.
Van Pappelendam, Walter Cor-		<i>'</i>
nelius	Agr sp	Warsaw
Van Petten, Oliver William	CE 1	Champaign
Van Shoick, Elmer Holmes	Cer 3 S	
Vantuyle, Robert	Agr 2	Manchester
Van Voorhis, Willis Eli	BLA 1	Tuscola
Van Zandt, Arnold Cyrus	BLA 3	Champaign
Varney, Charles Howard	LA 2	Delavan
Vasen, George Benjamin	EE 1	Quincy
. alon, deorge Denjamin		& wine g

Vauble, William Carl	CE 1	Washington
Vaughn, Lynn Brian	Md 2	Hurley, S. Dak.
Vautrin, Minnie	SS	Secor
Vear, Charles Edwin	BLA 3	Chicago
Verlie, Emil Joseph	LA 1	French Village
Vernon, Willett Blayney	ME 2	Chicago
Vestal, Arthur Gibson	S 3	Chicago
Vial, Joseph McNaughton	Agr 1	LaGrange
Vial, Sarah Adelia	HSAgr 3	LaGrange
Vigeant, Gregory, Jr.	A 3	Chicago
Vilim, Mark Washington	BLA 1	Riverside
Virgin, Eli Horace	Agr 1	Virginia
Voight, Irma Elizabeth	LA 4 $SS$	Quincy
Volmer, Verena Gertrude	LA 1	Carlyle
Voodry, Earl Corby	ME 2 SS	Champaign
Vosburgh, William Richardson, Jr.	BLA 1	Oak Park
Voss, Elizabeth Ann	HSAgr 1	Champaign
Voss, George Otto	Agr 1	Champaign
Voss, Matilda Caroline	HSLA 3	Champaign
Voss, Walter Charles	AE 2 SS	Chicago
Wacaser, Edwin Emery	LA $sp$	Hammond
Waddell, Mary Lucile	S 3	Princeton
Wade, John Oscar	CE 2	Oregon
Waggoner, Arthur Mellinger	A $sp$	Decatur
Waggoner, Edwin Harris	LA 3	Lewistown
Waggoner, Harry Dwight, A.B., 1909	SS	Godfrey
Wagner, Charles William	$\bar{S}S$	Ogden
Wagner, Gilbert Frederick John	L 1 $SS$	Princeton
Wagner, Claude Levern	ChE 4	Pontiac
Wagner, Harvey Franklin	CE 2	Virden
Wagner, Loraine Stewart	Agr 1	Belleville
Wahlin, Edla Charlotte	LA 1	Lindsborg, Kan.
Waits, Harmon Ebert	LA 3 $SS$	Elizabethtown, Ind.
Wakeley, Leslie Marion	Agr 3	Harvard
Wakey, Earl Rodner	Agr sp	Grand Ridge
Waldie, James Robert Rathie	Agr 4	Chicago
Walduck, Charles Louis	Cer 1	Chicago
Walk, Charles Florice	Agr sp	Vincennes, Ind.
Walker, Carle Capron	Agr 1	Clinton
Walker, Charles M	ME 4	$St.\ Joseph$

Walker, Clifton James	CE 3 $SS$	Chicago
Walker, Clyde Hildebrand	L 3	$St. \ Joseph$
Walker, Ernest DeWitt	Agr 4	Tennessee
Walker, Robert Allyn	Md 2 SS	Herrin
Wallace, Archibald Graeme	BLA 1.	Chicago
Wallace, Cora Elizabeth	Mus 3	Champaign
Wallace, Edward	CE 1	Chicago
Wallace, Frank Miller	Cer 3	Chicago Heights
Wallace, Joseph Edwin	SS	Charleston
Wallace, Mabel Clare	HSAgr 1	LaGrange
Wallace, Wellington James Hamil-		
ton	A sp	Monticello, Mo.
Wallace, William Arthur	ME 4	Chicago
Waller, Henry	Agr sp	Oak Park
Walter, Chesley Mathew	L 2	Savanna
Walters, Elaine Vera	$HSAgr\ sp$	Chicago
Walters, Jesse Noble	Agr 1	Carlisle, Ind.
Walton, Thomas William	LA 4	Rice's Landing, Pa.
Walworth, Edward Harvey	Agr 2	Morris
Walworth, Lena Althea	LA 4 $SS$	Morris
Wamsley, Henry Edward	ME $sp$	Arthur
Wand, Anthony William	CE sp SS	Elizabeth
Wanderer, Alvin Eugene John	CE 4	Oak Park
Wanderer, Oscar William Rudolph	CE 3	Oak Park
Wangelin, Herman Grover	BLA 2	Belleville
Ward, Elde Hewlitt	SS	Rantoul
Ward, Frank Anthony	AD 3	Sterling
Ward, George Snyder	BLA 4 SS	Benton
Ward, Mamie Lawrence	LA 1	Chicago
Ward, Mrs. Pauline Lillian Haw-		The state of the s
thorne	SS	Aurora
Ward, Philip Henry	L 1	Sterling
Warner, Fred Milton	CE 1	Dixon
Warnock, Charles Howard	BLA 2	Onarga
Warnock, David Wallace	Ch 4	Moline
Warren, Ernest	Agr sp	Bath
Warren, Francis Eugene	AE 2	Wasnington, D. C.
Warren, George Edward	CE 2	Paw Paw
Warrick, Ruth Elizabeth	HSLA 1	Loda
Warrington, Chester Henry	RE 2 SS	Washington, D. C.
Wascher, Frederick Martin William	Agr 3	Strasburg
,		

Washburn, Fred Philor	A 2	Burlington, Ia.
Washburn, Ludlow Joseph	S + SS	Evanston
Washburn, Ralph Harden	CE 2	New Berlin
Wasko, Victor Leonard	Agr sp	Chicago
Waterous, Willard	Md 2	Galva
Watkins, Albert Earl	$Agr sp$ $^{\circ}$	Normal
Watkins, Evart Montgomery	CE 3 SS	Blooming ton
Watson, Carl Page	BLA 3	Chicago
Watson, Chauncey Browne	LA 2	DeKalb
Watson, Grover W	LA 2	Farmer City
Watson, Marguerite	LA 4	Champaign
Watson, Minton William	ME 1	Champaign
Watson, Ray Carl	EE 4	Champaign
Watson, William Sumner, Jr.	EE 2	Ottawa
Watt, Laura Armenia	S 4	Princeton, Ind.
Watt, Lynn Andre	Ch 4	Pontiac
Watts, Charles Searle	Agr sp	Monticello
Watts, Claude Harrison	LA 1	Saunemin
Way, Clyde Lynn	L 1	Chicago
Weary, Clement Edwin	A 1	Sterling
Weatherly, Mary Ellen	SS	Marshall
Weaver, Rudolph	A 1	vrbana
Webb, Blanche Marion	HSAgr 2	Elgin
Webb, Charles Provine	L 1	E. St. Louis
Webb, Elmer E	L $sp$	E. St. Louis
Webb, James Madison	Ch sp	Urbana
Webb, Rayburn Stokes	A 1	E. St. Louis
Webb, Raymond Leo	Agr sp	Antioch
Webb, Ruth Chase	SS	Evanston
Webber, Lois Rebecca	LA 3	Urbana
Weber, Walter Harry	BLA 2	Tower Hill
Weeks, Charles Elmer	EE 3	Blooming ton
Weeks, Lyman S	ME 3 SS	Jackson, Mich.
Weeks, Robert Ellsworth	EE 3	Chicago
Weese, Glenn Walter	L 1	Ottawa
Wehrman, Effie Lucile	Mus sp	Seymour
Weil, Melvin Eichberg	$EE \approx$	Chicago
Weinberg, Margaret	LA 4	Rushville
Weinberg, Simon Palmer	EE 2 SS	Rushville
Weisfeld, Leo Harold	A 2	Cnicago
Weisiger, George Bates	L 3 $SS$	Catlin

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Weitzenfeld, David Henry	BLA 3	Chicago $Joliet$
Welch, George Richard	EE 4	Champaign
Wellman, Iva Dorrit	Mus 2	Champaign Champaign
Wellman, Orpha May	LA 3 SS	Harvard
Wells, John Richard	Agr 2	Williamsville, N. Y.
Wendling, Jacob	CE 4	Algonquin
Wenholz, Walter William	EE 3	Homer Homer
Wenrick, Hatty	LA 1	Paris
Wenz, Carolyn Louise	SS	Farina
de Werff, Henry August	Agr sp	Anderson, Ind.
Wertz, Chauncey Frost	ME 1	Loda
West, John Ralph	Cer 1	
West, Milton Mitchell	SS	Hoopeston
Western, Lea Miron	S 2 SS	Dundee
Westlund, Albert Frank	ME 4	Chicago
Weston, Frederick William	CE 4	Chicago
Wetzel, Ira Azel	SS	Stonington
Weydell, Arthur Theodore	ME 1 $SS$	Chicago
Whaite, Charles Miner	EE 1	Hoopeston
Wham, Charles	L 1	Cartter
Wharf, DeWitt J	LA 1	Olney
Whayne, Roy Coleman	ME 1	Louisville, Ky.
Wheatlake, Burton Cyrenous Job	EE 4	Urbana
Wheaton, Jesse Raymond	AE 3	Wheaton
Wheeler, Arthur Wayne	CE 3	- Bellflower
Wheeler, Earle Judson	CE 3 SS	Chicago
Wheeler, Frank Don	CE 1	Sterling
Wheeler, Irene Burchard	LA 1	Kankakee
Wheeler, Lyman Gage	CE 1	Carrollton
Whelan, James Marion, Jr.	CE 1	Chicago
Whisler, Samuel Llewellyn	EE $sp$	Sterling
Whitaker, Raymond Charles	A 1	Davenport, Ia.
Whitaker, Ruth Lincoln	LbLA 2	Chicago
Whitacre, Myrtle	SS	Carbondale
Whitchurch, John Ezra	Agr 4	Salem
White, Alvin Chester	CE 3	Fisher
White, Courtland Kirke	LA 2	Rockford
White, Don Elgin	AE 2	Chicago
White, Earl Archibald, B.S., 1908	CE $sp$	Antioch
White, Mrs. Eva Mahe Wells	HSAgr 1	Salem
White, Florence Leone	LA 4	Rantoul

White, Graybel Graham	EE 1	Chicago
White, Hattie Marvin	HSAgr 3	Beaver, Utah
White, James Gordon	CE 1	Chicago
White, John Ernest	L 1	Wyoming
White, John Wilson	L 1	Salem
White, Kingsley Barbour	RE 3	Champaign
White, Mary Louise	LA 2	Chrisman
White, Raymond William	BLA 1	Champaign
White, Sarah Kellogg	LA 1	St. Joseph, Mo.
Whitehead, Otis Gunn	CE 4 SS	LaGrange
Whitmire, James Sidney	S 1	Urbana
Whitmore, Meldo Hudson	Agr 1	Chicago
Whitnall, Clarence Arthur	ME 3	Peoria
Whitney, Charles Earl	CE 1	Silver Spring, Md.
Whitney, Elmer Zadok	Agr 1	Geneseo
Whitney, Helen Woodrow	LA 1	LaGrange
Whiton, Pearl Mara	Mus sp	Champaign
Whittaker, Malinda	LA 2	Cortland
Whitten, John Hamilton	SS	Castleton
Whittum, Fred Horace	ChE 3 SS	Hersher
Whittum, Samuel Harrie	BLA 3	Hersher
Wichman, Charles Oscar	Agr sp	Red Oak
Wicklein, Elmer Frank	Agr sp	Evansville
Wiekert, Heye	Agr sp	Emden
Wiersema, Harry Anthony	CE 1	Berwyn
Wiggins, Buford Carroll	Agr 1	Jennings, La.
Wilbourn, Asa J	CE 2	Olive Branch
Wilbourn, Leslie Leroy	L 2	Olive Branch
Wiley, Donald Francis	BLA 4	Peoria
Wiley, George Glenn	ME 3 SS	Warren
Wiley, James Elmo	Agr sp	Colfax
Wiley, Joseph Paul	BLA 3	Sullivan
Willard, Charles Julius, B.S.		
(Kan. State Agr'l Coll.), 1908	Agr 4	Manhattan, Kan.
Willerton, Taylor Pearce	EE 3	Farmer City
Williams, Anna Waller, A.B., 1907	HSS $sp$	Urbana
Williams, Arthur Edwards	Cer 4	Cleveland, O.
Williams, Clarence Foreman	L 1	Pittsfield
Williams, Clarence Foss	BLA 4 SS	Elgin
Williams, Effie Alma	SS	Vermilion Grove
Williams, Everett	S 4 SS	Vermilion Grove
,		

Williams, Glenn Richard	CE 4	Chicago
Williams, Lawrence Harmon	SS S	Elgin
Williams, Lillie Mae	SS	Crown Point, Ind.
Williams, Lula Hazel	LA 1	Sidell
Williams, Roy Campbell	CE 1	Chicago
Williams, Russell John	EE 1	Chicago
Williams, Lloyd Garrison	L 1	Elgin
Williamson, Belle	LA 1	Palacios, Tex.
Williamson, Mrs. Bertha Laemle	Mus sp	Champaign
Williamson, Earl Buell	L sp	Canton
Williamson, Earl Wilbre	Md 1	Tuscola
Williamson, Eugene Lamar	EE 1	New Brighton, Pa.
Williamson, Warren	S 1	Champaign
Willis, Roy Barnes	BLA 2	Mt. Carmel
Willmore, Cyrus Crane	L 1	Union Grove, Wis.
Wills, Frank	ChE 4	Mackinaw
Wilson, Addie Florence	HSAgr sp	
Wilson, Ben J	CE 2	Chicago
Wilson, Edwin Leonard	L 3	Joliet
Wilson, Frank Harland	EE 2	Champaign
Wilson, Horace Smith	EE 2	Chicago
Wilson, Jesse Henry	Agr 1	Grant Park
Wilson, John Lancaster	Agr sp	Springfield
Wilson, Lucy Gray	Lb 5	Washington, Ia.
Wilson, Nelle Mae	Lb 5	Macomb
Wilson, Page Hurlburt	S 1	Metamora
Wilson, Robert Elmer	L 1	Iuka
Wilson, Ross B	ME 3	Kankakee
Wilson, Sue	HSS sp SS	
Winn, Chester Vernon	Agr 1	Chicago
Winter, Paul John	SS	Ione, Cal.
Withers, Mrs. Bertha Haven	SS	Champaign
Wintin, Leota King	LA $sp$	Norman, Okla.
Wise, Louis Edwin	Agr sp	Beaver Creek
Wissing, Clement Bernard	ME 4	Vincennes, Ind.
Witcher, Edward Kitchell	LA 2	Olney
Withers, Llora	Mus 1	Lexington
Witt, Adaline Elizabeth	S 3	Kane
Witt, William Paxton	CE 2	Kane
Witte, Hulda Catherine	LA 4	Pekin
Wittich, Fred Peter, Jr.	EE 1	St. Louis, Mo.

Wold, Charles Abraham	CE 1	Sedalia, Mo.
Woleben, Dean Parkhurst	CE 2	Chicago Heights
Wolf, Herman Carl	EE 1	Edwardsville
Wolf, Otto Fred	CE 4 SS	Bensenville
Wolfe, Jacob	L 1	Lafayette, Ind.
Wolfe, William Sidney	EE 1	Urbana
Wolff, Clarence Jacob	LA 1	Springfield
Woltmann, Jesse John	CE 2	Nokomis
Womeldurf, Percy R	EE 1	Linton, Ind.
Wong, Chin Ying	CE 1	Kiung-chow, China
Wong, Tuck Ting	LA 1	Seunning, China
Wong, Wing Fooe	RE 1	Canton, China
Woo, Wai Shun	Agr 1	Shanghai, China
Wood, Daniel Charles	EE 1	Pekin
Wood, George Vernon	L 3 SS	Dillsburg
Wood, Harley Broadwell	Agr sp	Dietrich
Wood, Henry Clay	Agr 4	DeKalb
Wood, Lewis Robert	ME sp SS	Pekin
Wood, Margaret Crowell	Lb 5	Champaign
Wood, Stephen Gaskell	ME 4	Franklin Park
Woodburn, Roy Morton	ME sp	Byron
Woodman, Florence Howard	HSAgr 1	Chicago
Woods, George Edward	LA 1	- Ните - Ните
Woodward, Homer Bement	RE 2	Decatur
Woodward, Warren Crooke	L 1	Chicago
Woodworth, Harry Clark	SS	Chicago
Wooldridge, Fay Morse	EE 1	Gifford
Wooley, Robert Maxwell	CE 3 SS	Chicago
Woolman, Collett Everman	Agr 2	Urbana
Woolson, Harry Orville	SS S	Aurora
Woolston, William Henry	Md 1	Geneva
Wooters, Leland Magness	BLA 2	Carlinville
Worrell, Grace Lucille	S 3	Bowen
Worrell, Mabel Fern	LA 3	Bowen
Worsham, Walter Boatman	EE 2	Paris
Wrench, Homer	SS	Whiteheath
Wright, Charles Henry	SS	McLean
Wright, Ethel West	LA 2 SS	Urbana
Wright, George Caleb	EE 2	Libertyville
Wright, George Ellery	A 2	Streator
Wright, John Edward	EE 2	Herscher
	LL N	Herscher

Wright, Lela Mildred, Ph.B.		
(Univ. of Chicago), 1908	SS	Urbana
Wright, Mabel Alma	SS	McLean
Wright, Samuel Anthony	LA 1	Rome, Ga.
Wright, William Strong	BLA 4 SS	S. Hadley, Mass.
Wu, Hei Lui	CE 2 SS	Canton, China
Wyeth, Walter Heald	A 3	Chicago
Wyman, Wallace	A 1	Mansfield
Wyre, Dwight Emwrest	CE 1	Chicago
Yapp, William Wodin	Agr 3 SS	Champaign
Yates, George Ashton	RE 1	Collinsville
Yates, Robert Raleigh	CE 2	Washington, D. C.
Yockey, Dorothy Alice	HSAgr 1	Ottawa
Yang, Mrs. Chi-Fung	LA sp	Chungking, China
Yang, Shi Chung	BLA $sp$	Chungking, China
Yeager, Oswald Karl	AE 3 SS	Danville
Yin, Chuan Pong	BLA 3	Suchow, China
Yoke, John Jonathan	Agr 2	Acton, Ind.
Yonge, Minnie	S 4	Sterling, Col.
York, Gertrude Irene	HSLA 3 SS	Etna
York, Mattie Agnes	Md 3	Seymour
Yorks, Warner Rayen	Agr 2	Chicago
Young, Clyde McClellan	SS	Dillsburg
Young, Henry	AE 2	Keokuk, Ia.
Young, Robert Gardner	EE 2	Harvard
Young, Rose Jeannette	S 4	Rushville
Youngman, Wilber Bernard	ME 1	Pesotum
Yowell, John B	S 4 $SS$	Paris
Zearing, Louis Andrew	L 2	Princeton
Zeppenfeld, Eugene William	Agr 1	St. Louis, Mo.
Zerbee, Leigh Francis	RE 3	Bellefontaine, O.
Zerbee, Lewis Joseph	EE 1	Bellefontaine, O.
Zetek, James	S 3	Chicago
Zhen, Juedan Tun-shou	LA 4 $SS$	Hupeh, China
Zilly, Agnes Elizabeth	LA 1	Champaign
Zimmerman, Aaron Wilbur	ME 4	Tiskilwa
Zimmerman, George Fulton Daniel	L 3	Mason City
Zimmerman, George John	BLA 2	Peoria
Zimmerman, Robert Paul	SS	Peotone

## THE COLLEGE OF MEDICINE

Adams, Franklin William	4	Fort Worth, Tex.
Aisenstadt, Essex Albert	2	Chicago
Aldes, Harry	2	St. Paul, Minn.
Aldridge, James Mosely	1	Covington, Ind.
Allen, Abby D., M.D.		
(Denver Homeo. Coll.), 1907	sp	Chicago
Allen, Albert	2	Chicago
Alyea, Oliver Edmond	2	Earlville
Androp, Serge	2	Chicago
Anspach, Benjamin	1	Gifford, Mo.
Antle, James Sylvester	sp	Springfield
Armstrong, J. Frank, B.S.		
(Cornell Coll.), 1900	2	Marion, Ia.
Arnette, Floyd Henry	2	Geneseo
Ashworth, John Paul	4	Chicago
Atherton, Clesson Cushing	4	Chicago
Athon, Lewis Harlan	4	Anna
Baccus, Clyde Franklin	3	Lewistown
Badzmierowski, Michael	1	Chicago
Baker, Wallace Lovell	1	Buffalo, $N. D.$
Baldirrey, Frank Cornelius	2	Colon, Mich.
Bantug, Jose Policarpio	4 San Isia	dro, Nueva Eeija, P. I.
Barding, Lewis D.	3	Pana
Barnett, Irving Francis	1	Chicago
Bashur, Zerefeh E.	3	Tripoli, Syria
Baskind, Nathaniel F.	1	Chicago
Basu, Amil Chandra	4	Calcutta, India
Beem, Ione Ficher, A.B.		
(Indiana Univ.) 1905	1	Spencer, Ind.
Beilin, Aaron M.	2	Chicago
Belzig, Frederick Carl	2	Chicago
Benson, Axil Ferdinand	4	Batavia
Bentzien, Emil William	4	<ul> <li>Milwaukee, Wis.</li> </ul>
Berg, O. H., M.D., 1896	sp	Chicago
Beyerlein, Arthur Lewis	2	Chicago
Binkerhoff, Cleaver H.	1	Dudley
Bishkow, Isadore Edward	3	Chicago
Blair, Charles Patton, A.B.		
(Monmouth Coll.), 1905	2	Monmouth

Bloom, David	2	Chicago
Bloom, Julius	2	New York, N. Y.
Bloomfield, James Henry	1	Cedar Springs, Mich.
Blunk, Sanford M.	3	Chicago
Boehmer, Arthur Clarence	1	Tomah, Wis.
Boger, Thomas Abram	1	Aurora
Boone, Cornelius Edward	3	Zeeland, Mich.
Borchert, Robert Lambert	4	Chicago
Boren, Ethel Louvier	4	Liberty
Boyden, Wesley Lewis	3	Seymour, Wis.
Boyer, Eugene Radford	2	Pontiac
Boyer, Howard Clarence	4	New Albin, Ia.
Bradley, William Horace	4	White Heath
Bredlan, August Ernest	1	Chicago
Breeden, Roy F.	2	Richland Center, Wis.
Brines, Fred Harrison	3	West Salem
Brinkerhoff, Frank Erwin	1	Mohena
Brotchiner, Harry	1	St. Paul, Minn.
Brown, Edwin Mather	3	Tacoma, Wash.
Brown, Fitzhugh Lee	3	Ruthsville, Va.
Brown, Mamie Isabel	3	Iroquois
Brown, William Riley	1	Ogden City, U.
Burdon, Stephen Malcolm	1	Green Bay, Wis.
Burger, Theodore David	1	Spokane, Wash.
Burnett, Wesley Edward	4	St. Louis, Mo.
Burt, Clarence Edward	3	Henry
Butterfield, Edwin Rutherford	2	Seneca
Caddick, Earl	3	Quincy
Cahana, Stephen	3	Pittsburg, Pa.
Carberry, Francis Vincent	1	Chicago
Carlson, Mabel Rosina	2	Chicago
Carpenter, William Thomas	4	Chicago
Carroll, Elizabeth D.	4	Chicago
Carruth, Henry Lewis	4	Tylertown, Miss
Carter, Franklin Harvick	3	Vienna
Cary, Lee Winfield	4	Chicago
Cayley, Francis Joseph	1	Voss, N. D.
Chanania, Benjamin	2	Chicago
Charbonneau, Arthur Ames	4	Ishpeming, Mich.
Childers, William Lloyd	1	Murphysboro
Christofferson, Edward Albert	3	* Chicago
Chippon and Albert	0	Onicago

Cipriani, John, Jr.	1 Chica	100
Clegg, Earl George	4 Ainsworth,	
Cliff, Frank Neill	1 Ortonville, Min	
Cohn, Joseph Samuel	1 Chica	
Coleman, Everett Porter	1 Cant	
Comes, Urbana Velpert	1 Chica	00
Conerty, James Matthew	2 Harvo	ird
Conroy, Francis James	4 Chica	190
Cook, Samuel LeCount	i Washington, D.	C.
Coppler, Mayer	1 Chica	
Cragun, Wiley Moroni	3 Ogden,	
Crapple, William	3 Chica	
Crooks, Raymond F.	2 Gilm	an
Cullen, Clement Joseph	4 Chica	go
Currer, Paul McAllister	4 Le Sueur, Min	n.
Currie, Albert Harlan, A.M.	,	
(Univ. of Chicago), 1905	3 - Wyandotte, Mi	ch.
Czaja, Leon Matthew	3 Chica	
Czekala, Henry Joseph	3 Chica	go
Czeslawski, Edward Felix, A.B.		
(St. Stanislaus Coll.), 1906	4 Chica	go
Czolbe, Selma Olga	2 Chica	go
Dale, Edna Valeria	4 Versailles, M	10.
Damron, John Earle	3 Progra	ess
Davenport, Walter Paul	3 Appleton, Min	nn.
Davis, John Franklin	4 Rare	lin
Dawson, Drexel Lowry	1 Scotla	nd
De la Paz, Daniel	4 Gapan, Nueva Eeija, P.	I.
DelFosse, Anthony Ferdinand	1 Chica	go
Delzell, David Deronda	2 Logansport, I	nd.
Derdiger, Louis B., M.D.		
(Md. Med. Coll.), 1909	4 Chica	go
Desser, Abraham Lincoln	3 Chica	igo
Dicosola, Frank	2 Chica	go
Doerann, August Frederick	4 Chica	igo
Donahoe, Stephen A.	2 Sioux Falls, S.	D.
Donahoe, William E.	2 Sioux Falls, S.	D.
Donlon, Thomas Henry	4 Chica	igo
Dooley, Harry Joseph	3 Chica	go
Daugherty, Harrison Antonius	1 Strea	tor
Douglass, Frank Gerald.	4 Chica	go

Doyle, Nicholas Murray	3	Freelton, Ont.
Duffy, Hugh John	3	Chicago
Duncan, Jennie A.	4	Peoria
Duplantis, Arthur Lardovic	1	New Orleans, La.
Dwyer, Harry J.	2.	Chicago
Earl, Warner Zachary	1	Ottumwa, Ia.
Edwards, Clinton Alba	1	Lancaster, Wis.
Eede, Jacob William, M.D.		•
(Detroit Med. Coll.), 1896	4	Chicago
Egermayer, George Washington	3	Chicago
Elliott, Clarence Edward	1	Edmore, Mich.
Elliott, Loyd Albert	3	Elkhart, Ind.
Elner, Sheftel	1	Chicago
Engesather, John	2	Brocket, N. D.
Epley, Clarence Oscar	4	Waverly, Ia.
Epstein, Joseph William	3	Chicago
Epstein, William George, A.B.		
(St. Ignatius Coll.), 1906	4	Chicago
Exton, Lucy Alice	sp	Thomasboro
Exton, Thomas J.	sp	Thomasboro
Farbar, Marian Eleanor	4	Beatrice, Neb.
Ferguson, Alexander Donald	2	Chicago
Ferguson, James Robert	sp	Red Cloud, Neb.
Finney, Horance Maynard	1	Salem, O.
Finsand, Victor	1	Aberdeen, S. D.
Firey, Walter Irving	4	Aberdeen, S. D.
Fischer, Clement	2	Ft. Recovery, O.
Fisk, Roscoe Roby	2	Plainview, Mich.
Fleeger, Robert Benoni	2	Elwood, Ind.
Flexer, Howard	2	Joliet
Foley, Alexander	1	Chicago
Foronda, Manuel Directo	4 Sante	Maria, Ilocos Sur, P. I.
Foster, Mabel Gray	4.	Chicago
Foults, Ray M.	3	Lancaster, Mo.
Fox, Edward F.	3	Chicago
Frank, Adolph Mitchell	1	Livingston, Mont.
Freedman, Abe	2	Chicago
Freemmel, Harry Joseph	2	Chicago
French, Robert Loyal	3	Chicago
Frogner, Guy Samuel	3	Waupaca, Wis.
Fuchsmann, Mary	3 .	Chicago

Fuchs, Albert	2	Chicago
Funk, William Bernard, M.D.	4	Chicago
Furby, Robert Ludwick	2	Elmira, Wash.
Furno, John P.	4	Chicago
Gabby, S. Lee	4	Pawnee City, Neb.
Gage, Alan Edward	2	Montrose, S. D.
Gaggin, Frank Nathan	4	Chicago
Gallardo, Marcelino Mendoza	4	San Isidi, Nueva Ecija,
		Luzon, P. I.
Gethner, Max Peter	3	Chicago
Gillispie, James Charles	4	Chicago
Gindele, George William	4	Chicago
Glasier, William Francis	4	Whittemore, Ia.
Glassman, Leon	1	Chicago
Golbeck, Carl Henry	1	Chicago
Goodrich, Queenie Annie	1	Kewanee
Gordon, John Simpson	2	Waupaca, Wis.
Gotthelf, Edward John	1	Sioux Falls. S. D.
Gould, Harold Vogt	2	Chicago
Graner, Leonard Henry	4	Green Bay, Wis.
Gratzek, Thomas	3	Florian, Minn.
Grayson, Jesse Trott	1	Huntington, Ind.
Greene, Otto Ishmael	2	New Windsor
Greene, Robert E.	2	Holly Springs, Miss.
Greenman, Ernest Nelson	2	Sheldon
Gregg, Robert Scott	4	Chicago
Gregg, William Lee	4	Chicago
Gross, William August	4	Elgin
Grotowski, Leon	2	Chicago
Grove, Arthur Francis	4	Plainview, Minn.
Hageman, Paul S.	1	Spokane, Wash.
Hagie, Franklin Eugene, A.B., 1909	3	Elizabeth
Haig, Gwyn Forbes	1	Leroy
Hallberg, Charles Albert	3	Stockholm, N. D.
Halloway, Isaac H.	3	Chicago
Hammett, Harold	3	Chicago
Hammond, Walter Charles	3	Chicago
Hare, Carlyle	3	Keystone, S. D.
Hass, George Albert	3	Chicago
Harris, Lyndon Denny	2	Chicago
Harrison, George Wood	3	Ashland, Wis.

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Hartzell, Harry Wallace	2	Lemmon, S. D.
Hayes, Clara Edna	2	Culver, Ind.
Hazlett, William Henry	2	DePue
Hedrick, William Roy	4	Noble
Heim, Russell Rulo	4	Plymouth
Hempler, Herbert George	3	Round Knob
Henderson, John Franklin	3	Isabel
Hercik, William Louis	4	Chicago
Hergert, Clara A.	1	Kenosha, Wis.
Hess, Edward	3	Chicago
Hoge, Hildegarde M.	1	Morris
Hosmon, Sarah Longworth	4	Newberg, Ind.
Hrabrik, John H.	2	Murphysboro
Hughes, Joseph Walter	4	Chicago
Hulbry, Allen Joseph	1	Chicago
Hurka, Robert	2	Cedar Rapids, Ia.
Huyser, William C.	3	Zeeland, Mich.
Ihland, Leonard	3	DeForest, Wis.
Inks, Frank Emerson, A.B., 1903	2	Ohio
Isham, Anna Elizabeth, A.B.		
(Neb. Wesleyan Univ.), 1907	1	University Place, Neb.
Ishmael, Raleigh Preston	2	Cassville, Wis.
Jackman, Charles Bernard	3	Chicago
Jackson, Gordon	4	Cincinnati, O.
Jacobs, Burton LeRoy	4	Graysville, Tenn.
Jacobson, Harris	4	Chicago
Jeffs, Milton Dominick William	4	Rockland, Mich.
Jewell, Benson Mundy	2	Danville
Jindra, Frank F.	4	Chicago
Johnson, Arthur Greene	4	Thompsonville
Johnson, Charles Harcourt	3	Spring Valley, Minn.
Johnson, Grover Erman	4	McLanesboro
Johnson, John Arnason	3	Valley City, N. D.
Johnston, Cecil James	4	Fostoria, O.
Jones, David Jimson	3	Chicago
Jones, Walter Raymond	2	Redmon
Jordan, Alvin Thomas	4	Pliny, W. Va.
Joyce, Paul Vincent	2	Chicago
Juvinall, James Matthew	4	Potomac
Kaczmarek, Edward Klemens	3	Chicago
Kalinowski, Nicholas	1	Russia
Treatment of the treatm		100000

Chicago

Chicago

From T. S. M. M. A.D.		
Kane, Louis Matthew, A.B. (Creighton Univ., Neb.), 1906	2	Minet N D
Kara, John	z 4	Minot, N. D. Chicago
Kelleher, George Francis	3	Elkader, Ia.
Kile, Ray Porter	1	Rockford
King, Jesse Earl	4	Throckmorton, Tex.
Kistinger, William Frederick	* 3	Ranson
Kleger, Samuel Arthur	1	Battle Creek, Mich.
Klopper, Zan David	4	Chicago
Knight, Howard Tallcott	1	Rochell <b>é</b>
Knott, Harry	3	
Kobak, Disraeli William	1	Plymouth, Ind.
Kohn, Isadore E.	2	Chicago
Kotalik, Frank Joseph	1	Chicago
*	1	Chicago
Koursoumis, Constantine John	2	Sparta, Greece
Kraft, Sigurd H.	z 1	Chicago
Krasa, John Charles Matthew	2	Chicago
Kratzenstein, Louis R.	z 1	Chicago
Kratky, Oscar J.	1	Brooklyn, N. Y.
Kremer, Frank, Jr.	1	Chicago
Krolick, Giles Edward	1	Chicago
Kruszka, John Francis		Hammond, Ind.
Kunny, Bartholomew	4	Fredonia, Wis.
Kyle, Ernest Haskell	4	Hammond, Mo.
Lambert, Schuyler Colfax, A.B.		
(Univ. of Neb.), 1906	4	Onida, S. D.
Lane, Harold Clifford	3	Chicago
Lapham, Elah A.	3	Chicago
Lapin, Charles Philip	1	Chicago
Largent, Benjamin, A.B.	4	McKinney, Tex.
Lathrop, William Cumbach, M.D.,		
1909	sp	Morton, Kan.
Lauzer, Fred Arthur	2	Hutchinson, Minn.
Lavreri, Jack R.	2	Chicago
Law, Calvin John	4	Pawnee, Neb.
Laybourne, Ethel Mae	4	Greencastle, Ind.
Leahy, Thomas Murrav	4	Tiffin, O.
LeBeau, Albert Arthur	4	Chicago
LeBeau, Philip Max	4	Chicago

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Lenart, Frank

Lenit, Oscar Sydney

Levinson, Abraham	3	Maywood
Leviton, Max I.	4	Chicago
Lewis, Will Berry	4	Colchester
Light, Leland	1	Chrisman
Lindholm, Joseph Sebastian	ī	Rockford
Littlefield, Edmund William	2	Boyne City, Mich.
Lobraico, Roco V.	2	Chicago
Loewe, Gilbert Martin	2	Chippewa Falls, Wis.
Logan, Ray Evan	2	Elizabeth
Lollar, Myron E.	1.	Chicago
Look, Sylvester	sp	Minot, N. D.
Loomis, Western Cass	4	Chicago
Lorenz, Lynn L.	2	Rockford, Ia.
Luczah, John Harry	1	Chicago
Lueders, August Henry	2	Chicago
Lukas, Christine	1	Chicaga
Lukins, Aaron Tomlins	4	Garfield, Wash.
Lynn, John Harrison	2	Barrie, Ont.
Lyon, William Tracy	3	Naples, N. Y.
McCann, Florence Edith	1	Aberdeen, S. D.
McCarthy, Ralph Rowland	3	Chicago
McCormack, Alexander Edwin	3	Elgin
McCormack, Eugene Andrew	1	St. Paul, Minn.
McElvain, Robert Childers	4	DuQuoin
McGarry, Charles Patrick	4	Chicago
McGarry, Helen Amelia	4	Crystal, S. D.
McGuire, Desmond Francis	1	Ford River, Mich.
McIntire, Homer Marlatt, A.B.		
(Park Coll.), 1909	1	Winchester, O.
McKee, Walter Caraway	4	Chrisman
McKinley, Roscoe William	1	Monmoùth
MacLean, William Archibald	2	Hancock, Mich.
McLellan, Gordon Lawrence	1	Bowbells. N. D.
McLin, Thomas Garfield	4	Fairfield
McMullen, Clarence J.	2	Chicago
McNealy, Ray William	4	Burlington, Ia.
Magnus, Bertha Downing	1	Chicago
Maguy, Walter A.	sp	Chicago
Maher, Loretta Katherine	3	Chicago
Maley, George Elzer, B.S.		
(Knox Coll.) 1906	4	Galesburg

Mann, Sigmund Manoogian, Krikore Manoogian, A.B.  (Euphrates Coll.), 1901  Martin, Harry Watson  Martin, Harry Watson  Martin, John Franklin  Meacham, Hubert Franklin  Meacham, William Charles  Meany, Daniel Edward  Mesienheimer, Albert Adam  Mershon, Joseph Ingram  Meyer, Julius Felix  Meyers, Harry Albert  Miller, Charles  Miller, Charles  Miller, Charles Edward  Miller, Paul Morton  Miller, R. J.  Miltett, Verne Harrison  Mitchell, Ralph Ray  Mitzenmacher, A.  Moore, Harold H.  Moore, Luther Remi  Moore, Otis Andrew  Mosely, Elmer W.  Mosely, Elmer W.  Murphy, John Joseph  Mursel, Nair  Musselwhite, Brooks J.  Nasif, Naum George  Nelse, Frank William  Movak, Frank William  Movak, Frank William  Movak, Frank William  Morda Chicago  Chicago  Chicago  Mornel, A.  Chomokoosh, Armenia  Chicago  Chicago  Milwa Charles, I  Milwa Charles, I  Milwa Chicago  Milwa Chicago  Mornel, Carles  Chicago  Mornel, Carles  Murphy, Ralph Dollahan  Musselwhite, Brooks J.  Novak, Frank William  Movak, Frank William  Movak, Frank John  Moral, Man.  Chicago	Maltby, Harrison Willis	2	Kirksville, Mo.
(Euphrates Coll.), 1901       3       Choonkoosh, Armenia         Martin, Harry Watson       2       Chicago         Martin, John Franklin       2       Iowa Falls, Ia.         Meacham, Hubert Franklin       1       Oak Park         Meacham, William Charles       4       Oak Park         Meany, Daniel Edward       4       Chicago         Mesienheimer, Albert Adam       1       Milwaukee. Wis.         Mershon, Joseph Ingram       2       Mt. Carroll         Meyer, Julius Felix       4       Chicago         Meyers, Harry Albert       1       Galesburg         Michel, Carl       2       Chicago         Miller, Charles Edward       2       Princeville         Miller, Charles City, Ia.       Chicago         Millert, Verne Harrison       1       Graceville, Minn.         Mitchell, Ralph Ray       2       Martinsburg, Ia.         Moore, Harold H.	Mann, Sigmund	1	Chicago
Martin, Harry Watson         z         Chicago           Martin, John Franklin         z         Iowa Falls, Ia.           Meacham, Hubert Franklin         1         Oak Park           Meacham, William Charles         4         Oak Park           Meany, Daniel Edward         4         Chicago           Mesienheimer, Albert Adam         1         Milwaukee. Wis.           Mershon, Joseph Ingram         2         Mt. Carroll           Meyer, Julius Felix         4         Chicago           Meyer, Julius Felix         4         Chicago           Meyers, Harry Albert         1         Galesburg           Michel, Carl         2         Chicago           Miller, Charles Edward         2         Princeville           Miller, Charles City, Ia.<	Manoogian, Krikore Manoogian,	A.B.	
Martin, John Franklin         z         Iowa Falls, Ia.           Meacham, Hubert Franklin         1         Oak Park           Meacham, William Charles         4         Oak Park           Meany, Daniel Edward         4         Chicago           Mesienheimer, Albert Adam         1         Milwaukee. Wis.           Mershon, Joseph Ingram         2         Mt. Carroll           Meyers, Julius Felix         4         Chicago           Meyers, Harry Albert         1         Galesburg           Michel, Carl         2         Chicago           Miller, Charles Edward         2         Princeville           Miller, Charles Edward         2         Princeville           Miller, Paul Morton         2         Polo           Miller, Paul Morton         2         Polo           Miller, R. J.         4         Girard           Miller, Paul Morton         2         Polo           Miller, Paul Morton         2         Polo           Miller, Paul Morton         2         Polo           Miller, Paul Morton         2         Princeville           Miller, Paul Morton         2         Polo           Miller, Paul Morton         2         Martinsburg, Ia	(Euphrates Coll.), 1901	3	Choonkoosh, Armenia
Meacham, Hubert Franklin         1         Oak Park           Meacham, William Charles         4         Oak Park           Meany, Daniel Edward         4         Chicago           Mesienheimer, Albert Adam         1         Milwaukee. Wis.           Mershon, Joseph Ingram         2         Mt. Carroll           Meyers, Julius Felix         4         Chicago           Meyers, Harry Albert         1         Galesburg           Michel, Carl         2         Chicago           Miller, Charles Edward         2         Princeville           Miller, Charles Edward         2         Prioceville           Miller, Charles City, Ia.         A         Girard           Miller, Charles C	Martin, Harry Watson	2	Chicago
Meacham, William Charles         4         Oak Park           Meany, Daniel Edward         4         Chicago           Mesienheimer, Albert Adam         1         Milwaukee. Wis.           Mershon, Joseph Ingram         2         Mt. Carroll           Meyer, Julius Felix         4         Chicago           Meyers, Harry Albert         1         Galesburg           Michel, Carl         2         Chicago           Miller, Charles Edward         2         Princeville           Miller, Charles Edward         2         Polo           Miller, Paul Morton         2         Polo           Miller, Paul Morton         2         Polo           Miller, Paul Morton         2         Polo           Miller, Ralph Ray         2         Graceville, Minn.           Mitchell, Ralph Ray         2         Joliet           Mitzenmacher, A.         1         Chicago           Moore, Harold H.         2         Martinsburg, Ia.           Moore, Luther Remi         2         Martinsburg, Ia.           Moore, Otis Andrew         4         Columbia, Mo.           Mosely, Elmer W.         3         Chicago           Murfin, Walter Dean         4         Patoka	Martin, John Franklin	2	Iowa Falls, Ia.
Meany, Daniel Edward         4         Chicago           Mesienheimer, Albert Adam         1         Milwaukee. Wis.           Mershon, Joseph Ingram         2         Mt. Carroll           Meyer, Julius Felix         4         Chicago           Meyers, Harry Albert         1         Galesburg           Michel, Carl         2         Chicago           Miller, Charles Edward         2         Princeville           Miller, Paul Morton         2         Polo           Miller, R. J.         4         Girard           Millett, Verne Harrison         1         Graceville, Minn.           Mitchell, Ralph Ray         2         Joliet           Mitzenmacher, A.         1         Chicago           Moore, Harold H.         2         Martinsburg, Ia.           Moore, Luther Remi         2         Martinsburg, Ia.           Moore, Luther Remi         2         Martinsburg, Ia.           Moore, Otis Andrew         4         Columbia, Mo.           Moore, Otis Andrew         4         Columbia, Mo.           Murghy, John Joseph         3         Stamford, N. Y.           Murphy, Galph Dollahan         2         Stamford, N. Y.           Murphy, Ralph Dollahan         2	Meacham, Hubert Franklin	1	Oak Park
Mesienheimer, Albert Adam         1         Milwaukee. Wis.           Mershon, Joseph Ingram         2         Mt. Carroll           Meyer, Julius Felix         4         Chicago           Meyers, Harry Albert         1         Galesburg           Michel, Carl         2         Chicago           Miller, Charles Edward         2         Princeville           Miller, Charles Edward         2         Polo           Miller, Paul Morton         2         Polo           Miller, Ralm Morton         2         Polo           Miller, Ralm         4         Girard           Millert, Verne Harrison         1         Graceville, Minn.           Mitchell, Ralph Ray         2         Joliet           Mitzenmacher, A.         1         Chicago           Moore, Harold H.         2         Martinsburg, Ia.           Moore, Luther Remi         2         Martinsburg, Ia.           Moore, Luther Remi         2         McLeansboro           Moore, Otis Andrew         4         Columbia, Mo.           Mosely, Elmer W.         3         Chicago           Murhup, Walter Dean         4         Patoka           Murphy, Ralph Dollahan         2         St. Petersburg, Fla.	Meacham, William Charles	4	Oak Park
Mershon, Joseph Ingram         Z         Mt. Carroll           Meyer, Julius Felix         4         Chicago           Meyers, Harry Albert         1         Galesburg           Michel, Carl         2         Chicago           Miller, Charles Edward         2         Princeville           Miller, Charles Edward         2         Princeville           Miller, Charles Edward         2         Polo           Miller, Paul Morton         2         Polo           Miller, R. J.         4         Girard           Miller, R. J.         4         Girard           Miller, R. J.         4         Graceville, Minn.           Mitchell, Ralph Ray         2         Octaceville, Minn.           Mittell, Ralph Ray         2         Martinsburg, Ia.           Moore, Harold H.         2         Martinsburg, Ia.           Moore, Luther Remi         2         Martinsburg, Ia.           Moore, Otis Andrew         4         Columbia, Mo.           Mosely, Elmer W.         3         Chicago           Murhor, Othicago         Murhor, Othicago         Murhor, N.         Stamford, N. Y.           Murphy, Ralph Dollahan         2         St. Petersburg, Fla.           Musselwhite, Brooks	Meany, Daniel Edward	4	Chicago
Meyer, Julius Felix         4         Chicago           Meyers, Harry Albert         1         Galesburg           Michel, Carl         2         Chicago           Miller, Charles Edward         2         Princeville           Miller, Charles Edward         2         Princeville           Miller, Ray         2         Polo           Miller, R. J.         4         Girard           Millett, Verne Harrison         1         Graceville, Minn.           Mittell, Ralph Ray         2         Joliet           Mitzenmacher, A.         1         Chicago           Moore, Harold H.         2         Martinsburg, Ia.           Moore, Otis Andrew         4         Columbia, Mo.           Mosely, Elmer W.         3         Chicago           Muchnie, Adolph M.         3         Chicago           Murfhy, Walter Dean         4         Patoka           Murphy, Ralph Dollahan         2         St. Petersburg, Fla.           Musselwhite, Brooks J.         1         Chicago           Nasif, Naum George         2         Elmunsif, Syria           Neff, Emery Bowers         1         Rochelle           Nelson, William Henry         4         Superior, Neb.	Mesienheimer, Albert Adam	1	Milwaukee. Wis.
Meyers, Harry Albert         1         Galesburg           Michel, Carl         2         Chicago           Miller, Charles Edward         2         Princeville           Miller, Paul Morton         2         Polo           Miller, Paul Morton         2         Polo           Miller, Ray         4         Girard           Millett, Verne Harrison         1         Graceville, Minn.           Mitchell, Ralph Ray         2         Joliet           Mitzenmacher, A.         1         Chicago           Moore, Luther Remi         2         Martinsburg, Ia.           Moore, Cuther Remi         2         McLeansboro           Moore, Otis Andrew         4         Columbia, Mo.           Mosely, Elmer W.         3         Chicago           Murhore, Adolph M.         3         Chicago           Murfin, Walter Dean         4         Patoka           Murphy, John Joseph         3         Stamford, N. Y.           Murphy, Ralph Dollahan         2         St. Petersburg, Fla.           Musselwhite, Brooks J.         1         Chicago           Nasif, Naum George         2         Elmunsif, Syria           Neff, Emery Bowers         1         Rochelle	Mershon, Joseph Ingram	2	Mt. Carroll
Michel, Carl         Z         Chicago           Miller, Charles Edward         Z         Princeville           Miller, Paul Morton         Z         Polo           Millert, R. J.         4         Girard           Millett, Verne Harrison         1         Graceville, Minn.           Mitchell, Ralph Ray         Z         Joliet           Mitzenmacher, A.         1         Chicago           Moore, Harold H.         Z         Martinsburg, Ia.           Moore, Luther Remi         Z         McLeansboro           Moore, Otis Andrew         4         Columbia, Mo.           Mosely, Elmer W.         3         Chicago           Muchnie, Adolph M.         3         Chicago           Murfin, Walter Dean         4         Patoka           Murphy, John Joseph         3         Stamford, N. Y.           Murphy, Ralph Dollahan         2         St. Petersburg, Fla.           Musselwhite, Brooks J.         1         Chicago           Nasif, Naum George         2         Elmunsif, Syria           Neff, Emery Bowers         1         Rochelle           Nelson, William Henry         4         Superior, Neb.           Nickel, Frank William         4         Charles City	Meyer, Julius Felix	4	Chicago
Miller, Charles Edward         z         Princeville           Miller, Paul Morton         z         Polo           Miller, R. J.         4         Girard           Millett, Verne Harrison         1         Graceville, Minn.           Mitchell, Ralph Ray         z         Joliet           Mitzenmacher, A.         1         Chicago           Moore, Harold H.         z         Martinsburg, Ia.           Moore, Luther Remi         z         McLeansboro           Moore, Otis Andrew         4         Columbia, Mo.           Mosely, Elmer W.         3         Chicago           Murhin, Walter Dean         4         Patoka           Murphy, John Joseph         3         Stamford, N. Y.           Murphy, Ralph Dollahan         z         St. Petersburg, Fla.           Musselwhite, Brooks J.         1         Chicago           Nasif, Naum George         z         Elmunsif, Syria           Neff, Emery Bowers         1         Rochelle           Nelson, William Henry         4         Superior, Neb.           Nichols, Harry         1         Charles City, Ia.	Meyers, Harry Albert	1	Galesburg
Miller, Paul Morton         Z         Polo Miller, R. J.         4         Girard Girard Girard Millett, Verne Harrison         1         Graceville, Minn. Joliet Mitzenmacher, A.         1         Graceville, Minn. Joliet Mitzenmacher, A.         1         Chicago Moore, Harold H.         2         Martinsburg, Ia. Moore, Luther Remi         2         Martinsburg, Ia. McLeansboro Moore, Otis Andrew         4         Columbia, Mo. Mosely, Elmer W.         3         Chicago Michnie, Adolph M.         3         Chicago Murfin, Walter Dean         4         Patoka Murphy, John Joseph         3         Stamford, N. Y. Murphy, Ralph Dollahan         2         St. Petersburg, Fla. Musselwhite, Brooks J.         1         Chicago Nasif, Naum George         2         Elmunsif, Syria Rochelle Nelson, William Henry         4         Superior, Neb. Nichols, Harry         1         Rochelle Nichols, Harry         1         Chicago Chicag	Michel, Carl	2	Chicago
Miller, R. J.         4         Girard           Millett, Verne Harrison         1         Graceville, Minn.           Mitchell, Ralph Ray         2         Joliet           Mitzenmacher, A.         1         Chicago           Moore, Harold H.         2         Martinsburg, Ia.           Moore, Luther Remi         2         McLeansboro           Moore, Otis Andrew         4         Columbia, Mo.           Mosely, Elmer W.         3         Chicago           Muchnic, Adolph M.         3         Chicago           Murfin, Walter Dean         4         Patoka           Murphy, John Joseph         3         Stamford, N. Y.           Murphy, Ralph Dollahan         2         St. Petersburg, Fla.           Musselwhite, Brooks J.         1         Chicago           Nasif, Naum George         2         Elmunsif, Syria           Neff, Emery Bowers         1         Rochelle           Nelson, William Henry         4         Superior, Neb.           Nichols, Harry         1         Chicago           Nickel, Frank William         4         Charles City, Ia.	Miller, Charles Edward	2	Princeville
Millett, Verne Harrison         1         Graceville, Minn.           Mitchell, Ralph Ray         2         Joliet           Mitzenmacher, A.         1         Chicago           Moore, Harold H.         2         Martinsburg, Ia.           Moore, Luther Remi         2         McLeansboro           Moore, Otis Andrew         4         Columbia, Mo.           Mosely, Elmer W.         3         Chicago           Muchnie, Adolph M.         3         Chicago           Murfin, Walter Dean         4         Patoka           Murphy, John Joseph         3         Stamford, N. Y.           Murphy, Ralph Dollahan         2         St. Petersburg, Fla.           Musselwhite, Brooks J.         1         Chicago           Nasif, Naum George         2         Elmunsif, Syria           Neff, Emery Bowers         1         Rochelle           Nelson, William Henry         4         Superior, Neb.           Nickel, Frank William         4         Charles City, Ia.	Miller, Paul Morton	2	Polo
Mitchell, Ralph Ray         Z         Joliet           Mitzenmacher, A.         1         Chicago           Moore, Harold H.         Z         Martinsburg, Ia.           Moore, Luther Remi         Z         McLeansboro           Moore, Otis Andrew         4         Columbia, Mo.           Mosely, Elmer W.         3         Chicago           Muchnie, Adolph M.         3         Chicago           Murfin, Walter Dean         4         Patoka           Murphy, John Joseph         3         Stamford, N. Y.           Murphy, Ralph Dollahan         2         St. Petersburg, Fla.           Musselwhite, Brooks J.         1         Chicago           Nasif, Naum George         2         Elmunsif, Syria           Neff, Emery Bowers         1         Rochelle           Nelson, William Henry         4         Superior, Neb.           Nickel, Frank William         4         Charles City, Ia.	Miller, R. J.	4	Girard
Mitzenmacher, A.         1         Chicago           Moore, Harold H.         2         Martinsburg, Ia.           Moore, Luther Remi         2         McLeansboro           Moore, Otis Andrew         4         Columbia, Mo.           Mosely, Elmer W.         3         Chicago           Muchnie, Adolph M.         3         Chicago           Murfny, Walter Dean         4         Patoka           Murphy, Galph Dollahan         2         Stamford, N. Y.           Murphy, Ralph Dollahan         2         St. Petersburg, Fla.           Musselwhite, Brooks J.         1         Chicago           Nasif, Naum George         2         Elmunsif, Syria           Neff, Emery Bowers         1         Roohelle           Nelson, William Henry         4         Superior, Neb.           Nichols, Harry         1         Chicago           Nickel, Frank William         4         Charles City, Ia.	Millett, Verne Harrison	1	· Graceville, Minn.
Moore, Harold H. 2 Martinsburg, Ia.  Moore, Luther Remi 2 McLeansboro Moore, Otis Andrew 4 Columbia, Mo. Mosely, Elmer W. 3 Chicago Muchnic, Adolph M. 3 Chicago Murfin, Walter Dean 4 Patoka Murphy, John Joseph 3 Stamford, N. Y. Murphy, Ralph Dollahan 2 St. Petersburg, Fla. Musselwhite, Brooks J. 1 Chicago Nasif, Naum George 2 Elmunsif, Syria Neff, Emery Bowers 1 Rochelle Nelson, William Henry 4 Superior, Neb. Nichols, Harry 1 Chicago Nickel, Frank William 4 Charles City, Ia.	Mitchell, Ralph Ray	2	Joliet
Moore, Luther Remi 2 McLeansboro Moore, Otis Andrew 4 Columbia, Mo. Mosely, Elmer W. 3 Chicago Muchnic, Adolph M. 3 Chicago Muchnic, Adolph M. 4 Patoka Murphy, John Joseph 3 Stamford, N. Y. Murphy, Ralph Dollahan 2 St. Petersburg, Fla. Musselwhite, Brooks J. 1 Chicago Nasif, Naum George 2 Elmunsif, Syria Neff, Emery Bowers 1 Rochelle Nelson, William Henry 4 Superior, Neb. Nichols, Harry 1 Chicago Nickel, Frank William 4 Charles City, Ia.	Mitzenmacher, A.	1	Chicago
Moore, Otis Andrew 4 Columbia, Mo. Mosely, Elmer W. 3 Chicago Muchnic, Adolph M. 3 Chicago Murfin, Walter Dean 4 Patoka Murphy, John Joseph 3 Stamford, N. Y. Murphy, Ralph Dollahan 2 St. Petersburg, Fla. Musselwhite, Brooks J. 1 Chicago Nasif, Naum George 2 Elmunsif, Syria Neff, Emery Bowers 1 Rochelle Nelson, William Henry 4 Superior, Neb. Nichols, Harry 1 Chicago Nickel, Frank William 4 Charles City, Ia.	Moore, Harold H.	2	Martinsburg, Ia.
Mosely, Elmer W. 3 Chicago Muchnie, Adolph M. 3 Chicago Murfin, Walter Dean 4 Patoka Murphy, John Joseph 3 Stamford, N. Y. Murphy, Ralph Dollahan 2 St. Petersburg, Fla. Musselwhite, Brooks J. 1 Chicago Nasif, Naum George 2 Elmunsif, Syria Neff, Emery Bowers 1 Rochelle Nelson, William Henry 4 Superior, Neb. Nichols, Harry 1 Chicago Nickel, Frank William 4 Charles City, Ia.	Moore, Luther Remi	2	McLeansboro
Muchnie, Adolph M.  Murfin, Walter Dean  Murphy, John Joseph  Murphy, Ralph Dollahan  Musselwhite, Brooks J.  Musselwhite, Bro	Moore, Otis Andrew	4	Columbia, Mo.
Murfin, Walter Dean 4 Patoka Murphy, John Joseph 3 Stamford, N. Y. Murphy, Ralph Dollahan 2 St. Petersburg, Fla. Musselwhite, Brooks J. 1 Chicago Nasif, Naum George 2 Elmunsif, Syria Neff, Emery Bowers 1 Rochelle Nelson, William Henry 4 Superior, Neb. Nichols, Harry 1 Chicago Nickel, Frank William 4 Charles City, Ia.	Mosely, Elmer W.	3	Chicago
Murphy, John Joseph 3 Stamford, N. Y.  Murphy, Ralph Dollahan 2 St. Petersburg, Fla.  Musselwhite, Brooks J. 1 Chicago  Nasif, Naum George 2 Elmunsif, Syria  Neff, Emery Bowers 1 Rochelle  Nelson, William Henry 4 Superior, Neb.  Nichols, Harry 1 Chicago  Nickel, Frank William 4 Charles City, Ia.	Muchnic, Adolph M.	3	Chicago
Murphy, Ralph Dollahan 2 St. Petersburg, Fla. Musselwhite, Brooks J. 1 Chicago Nasif, Naum George 2 Elmunsif, Syria Neff, Emery Bowers 1 Rochelle Nelson, William Henry 4 Superior, Neb. Nichols, Harry 1 Chicago Nickel, Frank William 4 Charles City, Ia.	Murfin, Walter Dean	4	Patoka
Musselwhite, Brooks J.1ChicagoNasif, Naum George2Elmunsif, SyriaNeff, Emery Bowers1RochelleNelson, William Henry4Superior, Neb.Nichols, Harry1ChicagoNickel, Frank William4Charles City, Ia.	Murphy, John Joseph	3	Stamford, N. Y.
Nasif, Naum George2Elmunsif, SyriaNeff, Emery Bowers1RochelleNelson, William Henry4Superior, Neb.Nichols, Harry1ChicagoNickel, Frank William4Charles City, Ia.	Murphy, Ralph Dollahan	2	St. Petersburg, Fla.
Neff, Emery Bowers1RochelleNelson, William Henry4Superior, Neb.Nichols, Harry1ChicagoNickel, Frank William4Charles City, Ia.	Musselwhite, Brooks J.	1	Chicago
Nelson, William Henry4Superior, Neb.Nichols, Harry1ChicagoNickel, Frank William4Charles City, Ia.	Nasif, Naum George	2	Elmunsif, Syria
Nichols, Harry 1 Chicago Nickel, Frank William 4 Charles City, Ia.	Neff, Emery Bowers	1	Rochelle
Nickel, Frank William 4 Charles City, Ia.	Nelson, William Henry	4	Superior, Neb.
	Nichols, Harry	1	Chicago
Novak, Frank John 1 Chicago	Nickel, Frank William	4	Charles City, Ia.
, cittage	Novak, Frank John	1	Chicago
Oates, John Frank 1 Fond du Lac, Wis.	Oates, John Frank	1	Fond du Lac, Wis.
O'Brien, Wayne Paul 3 Wiprud, N. D.	O'Brien, Wayne Paul	3	Wiprud, N. D.
Odell, Lester Ely, B.S.			
(Univ. of Chicago), 1904 sp Chicago	(Univ. of Chicago), 1904	sp	Chicago
	O'Donnell, Dennis Michael	4	Aberdeen, S. D.
	Ofner, Lester Irving	1	Chicago
O'Donnell Dennig Michael 4 Abandoon C D	,		
	orner, rester riving	*	Chicago

O'Herrin, Neal Lawrence	2	Chicago
Ohman, Arthur Robert	1	Chicago
Olsen, Oliver S.	2	Duluth, Minn.
Olson, Walter K.	2	Grand Rapids, Wis.
O'Malley, John G.	2	Chicago
Orzechowski, Victor	3	Chicago
Ostrowski, Florian George, A.B.		
(St. Stanislaus Coll.), 1905	4	Chicago
Ostrowski, Leonard Joseph	2	Hammond, Ind.
Packard, James Wright	4	Chicago
Pankau, Herman	sp .	Chicago
Parker, Bernard B.	2	Numa, Ia.
Parker, Frederick Charles	4	Oak Park
Parker, Luke Wesleyan	2	Birmingham, Ala.
Pattison, Harry Archibald, M.D.	4	Chicago
Patton, Frank R.	1	Virden
Patton, Leigh Klumb	1	Chicago
Pea, Everett H.	1	Decker, Ind.
Pearson, Albert	4	Chicago
Peattie, James Francis	2	Ottawa
Pedott, Meyer S.	2	Chicago
Perlstein, Morris Max	2	Chicago
Perry, Howard Samuel	1	Joliet
Peterson, Edwin	1	Rock ford
Peterson, Thorvold	3	Tyler, Minn.
Pettepiece, Thomas Arthur	4	Free port
Petty, Ray Humbert	1	Mt. Carroll
Pitt, Harvey	4	Dixon Corners, Ont.
Plassman, Walter Frederick	3	Granite City
Pollard, Walter Sutton	3	Evansville, Ind.
Popper, Hugo	3	Chicago
Port, Fred James	2	Millbank, S. D.
Porter, Lincoln Combs	1	Ottawa
Powell, John Justin	sp	Winona, Minn.
Pratt, Roscoe Wellington	3	Chicago
Pulley, Louis Ammon	4	Chicago
Quaife, H. H., M.D., D.D.S.		
(Univ. of Ia.), 1903	4	Mason City, Ia.
Rategan, Edward Harold	2	Chicago
Raub, James Bernard	2	Spokane, Wash.
Ray, Blake Edwin	1	Cuba

Reagan, Thomas Harold	2 Canton
Ream, Walter Joseph	1 Peru
Redmon, Apdrew Jackson, A.B.	
(Indiana Univ.), 1901	3 Chicago
Reed, Elliott Arnold, M.D.	4 Chicago
Reed, Fred	1 Lead, S. D.
Reedy, Phillip Graham	4 Fort Yates, N. D.
Reeves, Ralph R.	1 Garrett
Reimche, Robert Clifton, B.S.	
(Univ. of Neb.), 1908	4 College View, Neb.
Reyes, Carmelo Ma	4 Lipa Batangas, Luzon, P. I.
Rhine, Arthur C.	2 Chicago
Riach, Thomas J.	3 Hebron, Col.
Richard, Homer Erastus	4 Salt Lake City, U.
Richmond, James, M.D.	4 Cogville, Ore.
Ricker, Charles Craver	3 Harvey
Righeimer, John William	4 Chicago
Robbins, Budd	% Kalispell, Mont.
Roemisch, Albert John	4 Blue Island
Rogers, Jay Clifford	4 White Lake, S. D.
Rose, Ignatius Harold Lowen	3 Chicago
Rothwell, William Thomas	4 Belle Plaine, Kan.
Rowland, Delta Eulilla	2 Sunnyside, Wash.
Ruddick, Hobart C.	2 Sandoval
Rupert, Richard R.	2 Nampa, Ida.
Rutkus, Susan Aldona	3 Grassville, Ind.
Salk, Robert Salem	1 Chicago
Salzman, Martha	2 Switzerland
Sanders, Robert Quirk, A.B.	
(James Millikin Univ.) 1907	3 Decatur
Santos, Gervasio y Cuyugan	4 San Fernando, Pampanga,
	P. I.
Santos, Rufino Abril	1 Arrayat, P. I.
Sarvela, Henry Louis	2 Waukegan
Sasko, Martin P.	2 Chicago
Sato, Shigeo	2 Hokaido, Japan
Savage, Mrs. S., M.D.	
(Coll. P. and S., Col.), 1908	sp Chicago
Sawyer, Alvah Lewis, B.S.	
(Beloit Coll.), 1909	1 Forest Park
Saylor, John G.	1 Hibbing, Minn.

Schafer, William Daniel	4	Franklin Furnace, O.
Schaus, Joseph Deaken	1	Milwaukee, Wis.
Schermerhorn, H. H., A.B.		
(Yale Univ.), 1904	sp	Storm Lake, Ia.
Schiele, William Christopher	2	Joliet
Schoenleber, Alvin	3	Rockport, Mo.
Schram, Frank Edward	2	Chicago
Schunk, Clara Margaret	4	Kiel, Wis.
Schwartz, Harriet Cecilia	3	Bessemer, Mich.
Schensnowich, Edward R.	1	Poland
Scott, Sydney Borden, A.B.		
(Atlanta Baptist Coll.), 1901,	M.D.	
(Meharry Med. Coll.), 1908	4	Chicago
Seeley, William Thomas	4	Iowa City, Ia.
Segall, Isadore Sidney	1	Chicago
Seiwell, Harry Stephenson	1	Danville
Selby, Claudea	1	North Platte, Neb.
Seldes, Annie Berman	1	Chicago
Seymer, Lewis August	1	South Milwaukee, Wis.
Shapiro, Alexander Meyer	1	Chicago
Sharpe, Harve Roy	1	Mill Creek, Ind.
Shaynin, James	3	Oak Park
Shell, Arthur E.	1	Clinton
Shepard, Chester O.	2	Chicago
Shipman, Frank Edmund	2	Paris
Siegler, William Joseph	4	Chicago
Sima, Charles A.	2	Chicago
Simmons, Lloyd Himbeaugh	1	Goshen, Ind.
Smith, Charles Edward	3	Farina
Smith, Clarence Vernon	1	Elwood, Ind.
Smith, George H.	1	Peshtigo, Wis.
Smith, James Royal	2	Canton
Smith, Sidney Albert	4	Chillicothe
Snook, Oscar R.	2	Chicago
Sochat, Leon	3	•
Soelbert, Paul Arthur	4	Chicago Granite Falls, Minn,
Sorley, Walter Vining	2	
	2	Weyauwega, Wis.
Spalding, Oliver Rufus	z 4	Chicago
Stanley, Zeph	4	Crossville
Steele, Charles Moore, B.S.	0	0.1.7
(Univ. of Chicago), 1904	2	Oak Park

Stein, Emil James	2	Chicago
Stein, Samuel	1	Chicago
Stevens, Charles E.	4	Jacksonville
Stigman, Charles W.	2	Miller, S. D.
Stober, Raymond W.	3	Greene, Ia.
Stocking, Amer Mills, D.D.		
(Ill. Wesleyan Univ.), 1907	4	Macomb
Stone, Clara	2	Chicago
Stone, Frank Lee	4	Chicago
Stone, Guy, M.D.	4	Minot, N D.
Stubenrauch, George Jacob	4	Chicago
Stusser, Samuel	2	Tacoma, Wash.
Suldane, John Anthony	sp	Chicago
Sullivan, Norman Ross	3	Aspen, Col.
Sullivan, Ralph Charles, A.B.		
(St. Ignatius Coll.), 1908	2	Chicago
Sutter, Rose Irene	3	Crookston, Minn.
Sword, Howard Russell	4	Lanark
Sykes, Lawrence G.	4	Milwaukee, Wis.
Tananevitz, Anton J.	1	Chicago
Taylor, Herbert F.	2	Chicago
Taylor, Ross O.	2	Havana
Taylor, William E.	1	Winnipeg, Can.
Thomas, Colin G.	3	Monticello, Ia.
Thomas, Elmer Merrill	1	Big Rock
Thomas, Frank	4	Canton
Thompson, Alvin	2	Chicago
Thompson, Gordon Graham, B.S.		
(Macalester Coll.), 1906	4	St. Croix Falls, Wis.
Thompson, Herbert LeRoy, M.D.		
(Hahnemann Med. Coll.), 1908	sp	Chicago
Tolentino, Mariono	4	Magsingal, Ilocos Sur,
		Luzon, P. I.
Towles, Henry Howard	1	Mt. Vernon, Tex.
Trentzsch, Max William	1	Dodgeville, Wis.
Trockey, Sidney N.	4	Chicago
Tupper, Harvey Willard	1	Chicago
Turgusen, Francis E.	1	Richland Center, Wis.
Urdang, Ruth Anna	2	Chicago
Valentine, James Andrew	3	Conrad, Ia.
Vallancy, John Hubert	4	Graceville, Minn,

Van Grundy, Clyde Rogers	2	Rock Field, Ind.
Vaughan, Willard Robert	2	Covert, Mich.
Vilna, Bretislav Lidumil	3	Chicago
Vitullo, John Marinelli	4	Chicago
Voight, Benjamin John	4	Kankakee
Wagner, Charles John, A.B.		
(Monmouth Coll.), 1905	8	Belle Center, O.
Wakefield, Orin Russell	4	Chicago
Wallingsford, William Jewell	1	Holt, Mo.
Walsh, John Emmett	4	Richland Center, Wis.
Walsh, Thomas Burke	2	Miller, S. D.
Wanderer, Arthur Emil August	2	Chicago
Watson, Willis Herbert	1	Tekoa, Wash.
Way, George Fritz, A.B., 1908	3	Proctor
Weil, Jerome	1	Chicago
Weissbreuner, Richard Frederick	4	Chicago
Welch, Paul Brown	1	Chicago
Weldy, Frank M.	2	Muscoda, Wis.
Wermuth, Arthur William	2	Chicago
Werner, Emil August	1	Beecher
White, Edward William	4	Dayton, O.
Wieneke, Clarence Henry	2	• Chicago
Wiley, Charles R.	2	Chicago
Wilson, Franklin Samuel	3	Chicago
Wilson, Henry Mason	3	Magnolia
Wilson, Roy Hitchon	2	Ogden, U,
Wilson, Todd J.	1	Greenville, Mich.
Wilson, William H.		
(Berea Coll.), 1904	4	Murray, Ky.
Woods, Ralph Hueston	1	South Bend, Ind.
Zeuch, Lucius H., M.D.	4	Chicago
Zimmerman, Goldie Eleonara	3	Aberdeen, S. D.

## COLLEGE OF DENTISTRY

COLDEGE OF DENTISTRY		
Andrews, William Hayward	3	Oak Park
Asger, Mehdi Edward	1	Hongkong, China
Ashley, Guy Irving	2	Chicago
Ashley, Spencer Paul	1	Chicago
Baeusky, A.	2	$Chicag \sigma$
Bellows, Hjalman Nicholas	2	Chicago
Berlin, Benjamin I.	3	Chicago

Berry, Evart B.	1	Pleasant Hill
Bicknel, Gilbert G.	1	Chicago
Block, Debora, D.D.S.	3	Chicago
Breezee, Mrs. Hildreth	1	Chicago
Brock, Alonzo Strother	3	Louisville, Ky.
Browne, Alexander Cecil, A.I	3. 3	Chicago
Brumfield, Cecil W.	2	Owensville, Ind.
Castiglia, Napoleon Leo	2	Chicago
Coghlan, William Perry	3	Kankakee
Collins, Walter F.	2	Elgin
Coltman, G. W.	1	Chicago
Coltman, Albert Frederick	1	Chicago
Comello, Frank S.	1.	Saint Joe, Mo.
Czekala, John P.	1	Chicago
Daniels, Leo N.	1	Chicago
Deutsch, Herman S.	1	Chicago
Eisenger, Harry	• 2	Chicago
Evanson, Edwin	1	Chicago
Farber, Abe Jacob	2	Chicago
Farrier, Rufus S.	3	Clarksville, Tex.
Feldsher, W. L.	1	Chicago
Finlay, Gilbert C.	2	Battle Creek, Mich.
Flannery, Joseph A.	1	Avoca, Wis.
Fried, Irvin U.	1	Fountain City, Wis.
Friedman, Bernard D.	1	Chicago
Gaff, Oliver	1	Tacoma, Wash.
Gayke, Clement F.	1	Chicago
Goldstein, Philip H.	1	Chicago
Griffin, Wilber Charles	2	Cedar Rapids, Ia.
Handelman, Edward D.	2	Chicago
Handelman, Henry Louis	2	Chicago
Harvey, George H.	1	Chicago
Horovits, Adolphe S.	2	Chicago
Hunnicutt, Robert W.	1	Chicago
Hyman, Benjamin H.	2	Chicago
Ito, Harry S.	1	Chicago
Jacobstein, Benjamin	3	Chicago
Johnson, Benjamin Edwin	2	St. Paul, Minn.
Jolly, David	2	Norwood Park
Joyce, John Leo	2	Waterloo, Wis.
Kasen, Herman	2	Felch, Mich.

Zashon Budoloh A	2	Augadia Wie
Kreher, Rudolph A.	z 2	Arcadia, Wis. LaPorte, Ind.
Krejci, Frank J. Lager, Victor E.	z 2	Chicago
Larkin, Hugh Alfred	~ 3	Northfield, Minn.
Larsen, Christian Peter	2	Albert Lea, Minn.
Latham, Lloyd Warner		Pekin
Lee, Victor Lawrence	3	Chicago
Lewis, Roy James	2	Chicago
Lindhe, Berthil M.	~ 2	Rockford
Lubs, Kerwin Charles	2 2	Arcadia, Wis.
McNulty, James Anthony	3	Spring Green, Wis.
Mann, Henry	1	Chicago
Mann, Robert	1	Chicago
Martin, Carl David	2.	Chicago
Martin, Carl David Martin, Oskar Paul	2. 1	Chicago
Meadow, Marie	3	New York City
Mennell, Alfred	3 2	
Mercer, Samuel Osborn	3	London, Eng.
	3	Chicago
Metzner, Horace Edmund	3 1	Kewaunee, Wis.
Meyer, Arthur C. Miles, John I.	2	Gilman
	1	Chicago
Mooney, Jerome Francis	3	Salem, Wis.
Mooney, Mervil Lloyd	. 2	Blue Mound
Moore, Max Hewitt	z 2	Faulkton, S. D.
Mulholland, Richard C.	z 3	Omagh, Ireland
Nordeen, Emil Ludwig	3 3	Coloma, Mich.
O'Hora, James Anthony	3 1	Avoca, Wis.
Palese, Joseph D.	1	Chicago
Peter, Hanna E.	1	Chicago
Porath, Mrs. Edla A.	_	Varina, Ia.
Porath, Fred Edward	2	Varina, Ia.
Porter, Charles Alexander	2	Calvin, N. D.
Redman, Verner F.	2	Princeton, Ind.
Roberts, Solomon H.	1	Chicago
Roth, Abraham	1	Chicago
Rotzoll, Albert Max	3	Chicago
Russakov, Samuel Irwin	3	Chicago
Sayre, B. F., D.D.S.	3	Chicago
Schaffner, Herbert Harold	2	Chicago
Schoolman, Harry M.	2	Chicago
Schroeder, Louis August	2	Chicago

Schulzke, Dora	1	Potsdam, Germany
Shafer, Harry Burns	3	Anna
Shay, Amanda A.	1	Chicago
Shere, John	2	Chicago
Slaman, Corinne Verl	1	Lennox, S. D.
Smith, Frank James	3	Antioch
Starr, Solomon Perry	2	Bismarck
Stuart, Carroll W.	1	Traer, Ia.
Sutherland, Lee C.	2	Tarkio, Mo.
Taft, Walter Leonard	3	Knoxville, Pa.
Tawney, Pliny Lane	1	Chicago
Tay, Carl D.	1	Chicago
Teeling, Peter Joseph	1	Philadelphia, Pa.
Thomson, John F.	2	Beaulieu, N. D.
Urbanek, Joseph	2	Chicago
Urbanek, Mamie J.	2	Chicago
Vann, George Henry	3	Clinton, N. Y.
Wieland, Henry J.	2	Arcadia, Wis.
Wilson, W. I.	2 .	Chicago
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## SCHOOL OF PHARMACY

Adams, Oliver Joseph	P 1	Grayville
Almquist, Albert	P 1	Pecatonica
Anderson, Adolph Emil	P 1	Molinê
Anderson, John Berger	P 2	Peoria
Annibale, Frank	P 2	Chicago
Backus, Edwin John	P 1	LaPorte, Ind.
Begge, Arthur Frederick	P 2	Aurora
Baker, Roy Ernest	P 2	Chicago
Barsanti, Alfred John	P $sp$	Berwyn
Baznerm, Gustave	P 1	Chicago
Beley, Fred William	P 1	Livingston, Mont.
Benson, Harry Frederick	P 1	Comer
Benson, John Simon	P 2	Joliet
Berg, Conrad August	P 2	Chicago
Bixby, John Elon	P 1	South Haven, Mich.
Bode, Carl F.	P 1	Cairo
Bottom, Centennial John	P 2	East St. Louis
Boutte, Matthew Virgil, B.S.		
(Fisk Univ.), 1908	PC 2	New Iberia, La.
Bower, Clifford Jerome	P 1	Aledo

Bracken, Leonard William	P $sp$	Chicago
Bradley, Eugene Wilford	P 1	Chatham
Bredenback, William Arthur	P $sp$	Quincy
Brodd, Lawrence	$P$ $\tilde{1}$	Cambridge
Brown, Rush Arthur	P 2	Sioux Falls, S. D.
Burda, Stanley Walter	P 1	Chicago
Burley, Bert Douglas	P 1	Chicago
Carpenter, Bryce	PC 2	Cuba
Charley, Michael Frank	P 1	LaSalle
Churchill, George Semple	P 1	Canton
Cole, Arvelle Richard	P 1	St. Louis, Mo.
Colson, Henry William	P 2	Chicago
Cool, B. Ross	P 2	Farmer City
Corbin, Arthur C.	P 2	Canton
Costello, Vincent Lawrence	P 1	Toluca
Cummings, Charles Clifford	P 2	Lena
Curtis, Sidney Barber	P 1	Rock Falls
Delabar, Henry Urban	P sp	Hull
Eck, Charles Patt	PC 2	Chicago
Eicher, Ben Lee	PC 1	Chicago
Englund, Arthur Theodore	P 2	Escanaba, Mich.
Ensign, Horace Samuel	P 1	Ogden, U.
Esackson, Charles Harvey	P sp	Chicago
Finley, John Westley	P 1	Coles
Flynn, Thomas Jerome	P 1	Bloomington
Foote, Clifford LeRoy	PC 1	Elgin
Fortier, Arthur R.	P 1	Chicago
Frazier, James Virgil	P 1.	Champaign
Garrity, Jeremiah Gerald	P sp	Spring Valley
Gericke, Julius Theodore	P 1	Lake Mills, Wis.
Gilbert, Joseph Anderson	P 1	Chicago
Golombiewski, John Peter	P 2	Chicago
Goveia, Lloyd Dace	P 2	Springfield
Gunther, Edward William	P 2	LaSalle
Halfacre, Edward Joseph	P 1	Columbia, Tenn.
Haney, Ralph Herbert	P 1	Hampton, Ia.
Harlin, Jess D.	P 1	Livingston, Mont.
Heidbreder, Herbert Henry	PC 1	Quincy
Heisel, Lawrence Martin	P $sp$	Pekin
Helstrom, Andrew Berger	P sp	Chicago
Herrick, William Albert	P 2	Beaver Dam, Wis.

Hindman, Finis	P 2	Herrin
Hollingsworth, Fred H.	P 1	Plankinton, S. D.
Hourigan, Bernard James	P 1	Smith's Falls, Ont.
Hrejsa, Joseph Francis	P 1	Chicago
Janssen, Martin Louis	P $sp$	Sterling
Janz, Ernest Theodore	P 1	Chicago
Jindra, Joseph	P $sp$	Chicago
Johnson, Robert Frank	P sp	Peoria
Johnson, Scoville Herman	P 1	Paris
Josenhans, Paul Reinhold	P 2	Chicago
Kaczynska, Sabina	P 1	Chicago
Kapoun, Joseph Anton	P $sp$	Chicago
Kauffman, Albert Clinton	P 2	Waterman
Keefrey, James Charles	P 1	Streator
Kepner, Paul McCulloch	P 1	Port Royal, Pa.
Klitsche, Charles Henry, A.B.		
(St. Ignatus Coll.), 1909	P 1	Chicago
Knotts, Noah William	P 1	Chatham
Knox, William Pierce	P 2	Rensselaer, Ind.
Kobylanski, John Francis	P 2	Chicago
Kremer, Frank, Jr.	P 2	Chicago
Krupicka, Joseph	$P$ $\mathscr Z$	Chicago
Kvitek, Louis Charles	P sp	Chicago
Lee, Orval Wilkie	P 1	Decatur
Lee, Solomon Leroy	P 2	Chicago
Lindstrom, Reuben,	P 1	Rock Island
Liska, John Joseph	P 2	Chicago
Lower, Roy Harry	PC 1	Cairo
Lutz, Carl William	P 2	Ottawa
Lyons, Lucian DeWayne	P 2	Cuba
Lyons, Nathan	P sp	Chicago
McNulty, John Oustes	P 1	Chicago
McVay, Roy H.	P 2	Cuba
Machenheimer, Oscar John	P 1	Shawnee, Okla.
Maloney, Thomas Raymond	P 2	Livingston, Mont.
Mark, Erwin John	P 1	Chicago
Marshall, Jacob Clayton	P 2	Nokomis
Marzano, James Vincenzo	P 2	Chicago
Maynard, Henry Curtis	P 1	Oregon
Milewski, Chester Albert	P 1	Chicago
Miller, David Lyman	P 1	Carmi

Miller, Irvin Henry	P 2	Shawano, Wis.
Moffett, Frederic Earle	P 1	Park Ridge
Montgomery, Ernest Elmer	P 1	Poseyville, Ind.
Mottar, Samuel Mayo	P 2	Chicago
Neis, Adelvert Dale	P 2	Ohio
Niemeyer, Albert Philip	P 2	Quincy
Niesen, Theodore Bernard	P 2 ·	LaSalle
Nooner, Thompson Alexander, B.S.		
(Bethel Coll.), 1907	P 1	Sharon, Tenn.
Ostrowski, Bernice Antoinette	P 1	Hammond, Ind.
Perkins, William Albert	$P$ $\mathcal{Z}$	Deerfield, Wis.
Peter, Henry Onno	P 2	Peoria
Pfaff, Jerome Henry	P 2	Centralia
Phillips, Roscoe Conklin	P 2	Lostant
Pieper, Louis Albert	P $sp$	Jacksonville
Pirofalo, Joseph	P 2	Chicago
Pokorney, Michael Adalbert	P 1	Chicago
Prendergast, Richard Joseph	P 1	Chicago
Prims, George Theodore	P $sp$	Chicago
Proffitt, William E.	PC 2	Hastings, Neb.
Purcell, Warner Edmund	P 2	Eldorado
Reid, French Baxter	P $sp$	Chicago
Richmond, James Melville	P 1	LaSalle, Mo.
Robb, Lanier James Humphrey	P 1	Heyworth
Roberts, Raymond Ellis	P $sp$	Springfield
Rogers, Oscar Wild	P 2	Bellingham, Wash.
Rose, Oscar Francis	PC 2	Grand Forks, N. D.
Ross, Thomas	P 1	Coal City
Roth, Victor	$P$ $\mathcal{Z}$	Chicago
Rouleau, Francis Joseph	$P$ $\mathscr Q$	Manteno
Sammons, George	P $sp$	Towanda, Pa.
Sanford, Jacob Louis	P 2	Duquoin
Sarginson, Rollo Bielby	P 1	Chester field
Schaffarzick, Frederick William	P 2	Jefferson, Wis.
Schildberg, Benjamin Samuel	P 1	Mendota
Schmeling, Carl	P $sp$	Chicago
Schmid, Rose Phillipus	P 2	Chicago
Schreiber, Charles George	P 1	Chicago
Schutte, Theodore Henry	P $sp$	Springfield
Scott, John Forrest	P 2	Toulon
Seibert, Walter C.	P 2	Tamaroa

Seibert, Virgil Frederick	P 1	Ashley
Setz, Edwin Joseph	P 1	Lake Mills, Wis.
Sieben, Harry Albert	P 1	Hastings, Minn.
Sister Mary Benigna	P sp	Chicago
Smith, Louis Gregory	P 1	Chicago
Smith, William Adolphus	P 1	Joliet
Spikings, Marshall L.	P $sp$	Winnemac Station
Stocks, Robert Harvey	P 1	Chicago
Strozoda, Robert Aloysius	P 1	Chicago
Stulik, Charles	PC 2	Chicago
Taylor, Roy Spencer	P $sp$	Chicago
Thesen, Benjamin	P 2	Quincy
Turner, Hubert John	P $sp$	Danville
Vance, Arthur B.	P 2	Quincy
Vavra, Minerva	P $sp$	Chicago
Vorsanger, Lillian	P sp	Chicago
Walker, Daniel Tedford	P 2	Dongola
Walter, Charles Elmer	P 2	Aledo
Watson, Lou Archibald	P 1	Ashley
White, Harry Arthur	F 1	Wyoming
White, William Sylvester, A.B.		
(Fisk Univ.), 1908	P 1	Chicago
Wiehn, John William	P 2	Westchester, N. Y.
Williams, Benjamin H.	P 2	Putnam
Williams, George Albert	P 2	Gardner
Winborn, Elmer Norris	~ P 2	Detroit, Mich.
Winkleman, Edward Herman	P $sp$	Quincy
Wisman, Ralph Illuminate	P sp	Quincy
Withey, Clarence Arthur	P 1	Springfield
Wittenberg Harry Levy	P 1	Chicago
Wruck, Otto Julius	P 1	Herscher
Zajicek, Adolph	P 1	Chicago
Zellinger, John William	P 1	Medford, Wis.
Zielinski, Theodore Joseph	P $sp$	Manistee, Mich.
Zito, Rocco	P 1	Chicago
•		

## SUMMARY OF STUDENTS, 1909-10.

	omen Total
Graduate School 236	47 283
Undergraduate Colleges—	
LITERATURE AND ARTS—	
Seniors 78 75	3 151
Juniors 69 103	3 172
Sophomores 89 102	2 191
Freshmen	310
Specials 22 34	56
<del> 4</del> 03 <del></del>	477 — 880
Science-	
Seniors 50 11	61
Juniors 46 16	62
Sophomores	60
Freshmen 86 11	. 97
Specials 12 5	17
<del> 246</del>	51 —— 297
Engineering—	
Seniors 244	244
Juniors 275	275
Sophomores 308 1	309
Freshmen 431 5	436
Specials 39	39
<del>1297</del>	61303
AGRICULTURE—	
Seniors 48 6	54 *
Juniors 56 10	66
Sophomores 94 15	109
Freshmen 162 41	203
Specials 184 12	196
<del> 544</del>	84 628
LIBRARY SCHOOL-	
Seniors 3	28 31
School of Music—	
Seniors 3	3
Juniors 1 1	2
Sophomores 3	3
Freshmen 22	22
Specials 3 28	31
<u> </u>	57 —— 61
Total2497	703 3200

SUMMER SESSION	456		175		631	
Remained, counted above			47		318	
		185		128		313
College of Law-		100		120		010
Third year	41				41	
Second year	31		• • • •		31	
The state of the s	93		1		94	
First year						
Specials		100	• • •		27	***
	_	192	—	1		193
COLLEGE OF MEDICINE—						
	137		10		147	
Juniors	90		7		97	
Sophomores	128		6		134	
Freshmen	124		8		132	
Unclassified	14		2		16	
_		493		33		526
College of Dentistry-						
Seniors	23		2		25	
Juniors	43				44	
Freshmen	36		3		39	
a resulted		109		6		108
School of Pharmacy-		102		U		100
In Pharmacy, Seniors	58		1		59	
	74		1			
In Pharmacy, Juniors			_		75	
In Pharmacy, Specials	27		3		30	
Pharmaceutical Chemists, Seniors	6		• • •		6	
Pharmaceutical Chemists, Juniors					4	
-		169		5	—	174
	-		-	—	-	
	á	3874		923	4	1797
Deduct counted twice		13				13
	-		-		-	
Total in University		3861		923	4	1784
ACADEMY*				77		334
	_		_		_	
Total in University and Academy	4	118		1000	E	5118

<sup>\*</sup> See appendix.

## **DEGREES CONFERRED 1910**

#### BACCALAUREATE DEGREES

Conferred June 15, 1910

Frances Dorcas Abbott, A.B. Laurie Lee Allen, A.B. Ira Blair Altekruse, B.S. Grace Margaret Alverson, B.Mus. Harold Brother Anderson, B.S. Fred George Arends, B.S. William Henry Arnold, Jr., B.S. Leon Eaton Cummins Ashley, B.S. Daniel Manning Avey, B.S. Frank Bachmann, B.S. Ernest Henning Bailey, B.S. Henry Clarke Balcom, B.S. William Henry Balis, B.S. Richard Woleben Bardwell, A.B. Agnes Barrett, A.B. George Andrew Christan Barth, B.S.George Bergen Bashen, B.S. Louis Raymond Bear, A.B. Herbert Bebb, A.B. Alexander William Beemer, B.S. Bernhard August Beinlich, A.B. Charles Manley Bell, B.S. Herbert Eugene Bell, B.S. Ira John Berkema, A.B. Walter Bernreuter, A.B. Max Arnold Berns, B.S. Hannah Beulah Berolzheimer, A.B.Ray Chamberlain Berry, A.B.

Grace Josephine Black, A.B. Alice Ledlie Blair, A.B. Allen Axel Blomfeldt, B.S. Harry Clow Boardman, B.S. Minnie Joanna Bollman, A.B. George Thomas Bond, B.S. John Henry Bornmann, Jr., B.S. Alida Cynthia Bowler, A.B. Horace Dale Bowman, B.S. Clarence Boyle, Jr., B.S. Arthur Eugene Bramball, B.S. Ralph Roger Bramhall, B.S. Sara Hazel Brand, A.B. Thomas Bregger, B.S. Edward Webb Brown, B.S. Robert Ellsworth Brown, A.B. Lelah Brownfield, A.B. Wilber L Buchanan, A.B. Edwin Corlies Atlee Bullock, B.S. Charles Montgomery Bunn, B.S. Claude Emanuel Burgener, A.B. Harley Thompson Burgner, B.S. Kingsley Abner Burnell, B.S. Clarence David Butzer, B.S. John W Buzick, B.S. Neil Nelson Campbell, B.S. Orson Allen Carnahan, B.S. Sarah Myrtle Castile, A.B. Kie Cattron, B.S. Maude Opal Cessna, A.B.

Joseph Ferdinand Chinlund, B.S. Camillo Chopin Christensen, B.S. Harry Harmon Coe, B.S. William Francis Coleman, B.S. Richard Osborn Compton, B.S. Agnes Bouton Cooper, A.B. George Alfred Cooper, B.S. Earl Zink Cornwell, B.S. Hazel Iona Craig, A.B. Nelson Earl Craig, B.S. Hiram Edward Crossland, B.S. Paul Calvin Crowell, B.S. Watts Cyrus Cutter, B.S. John Blanton Dabney, B.S. (Miss. Agr. & Mech. Coll.), 1908, B.S. William Wilbur Dale, A.B. Karl M Dallenbach, A.B. Willis Chester Danielson, B.S. Gertrude Curtis Davis, A.B. Warren William Day, B.S. John Edward Demmer, A.B. Bertha Elizabeth Denning, A.B. Walter Edward Deuchler, B.S. Edward Leland Dillon, B.S. Wilbur James Dixon, B.S. Edgar Dwight Dovle, B.S. Louis August Dumond, B.S. Landale William Duncan, B.S. Leroy Morrell Dunsheath, B.S. Alice Harriet Durland, A.B. Warren Erett East, B.S. Harry David Easterbrook, B.S. Randolph Eide, A.B. Arthur Wesley Eisenmayer, Jr., A.B.Walter Elmer Ekblaw, A.B. Charles Lyman Ellis, A.B. Lloyd Kirk Ellsberry, A.B. Marie Jeanette von Engelken, A.B.

Iguacio Ceferino Enriquez, B.S. Clifford Erick Joseph Erikson, B.S.John Weston Essington, A.B. Byron Meridith Fast, B.S. Ruth Davida Felmley, A.B. J Frank Felter, B.S. Irwin Glenn Ferguson, B.S. Irene Mary Ferris, A.B. Erwin Oliver Finkenbinder, A.B. Ulysses Simon Fitzpatrick, A.B. Robert Bruce Fizzell, A.B. Harvey Aiken Flanders, A.B. John Renchin Fornof, A.B. Ewell Gerdes Franken, A.B. Victor Byron Fredenhagen, B.S. John Reed Fugard, B.S. Nagendra Nath Gangulee, B.S. Garabed Arshag Zacar Garabedian. A.B. Juan Igancio Garza, B.S. Frank Caleb Gates, A.B. Orus Ethan Gates, B.S. Cicely Sarah Goff, A.B. Frank Cravens Grannis, B.S. Nina Vivien Gresham, A.B. Arthur Carl Griewank, B.S. Dwight Griffin, B.S. Roland Wheelock Griffith, A.B. Walter Milo Griffiths, B.S. Arthur Sariah Grossberg, B.S. Sanford Lackey Grove, A.B. Laurence Richard Gulley, B.S. Ada Olive Haggard, A.B. Chester Irving Hall, B.S. Margaret Hope Hallett, A.B. Raymond Franklin Hammer, B.S. William Rambo Hanes, B.S. James Thomas Hanley, B.S. Columbus Loren Harkness, B.S. Charles Harris, B.S.

Benjamin Harrison, B.S.
Donald Frederic Harrison, B.S.
Walter Millard Haskell, B.S.
Carl Frederic Hassenstein, B.S.
Frank Wyatt Hatten, B.S.
Warner Madison Hattrem, B.S.
Charles Henry Healy, B.S.
Walter Carl Heimbeck, B.S.
Clarence Schuck Heislar, B.S.
Margaret May Herdman, A.B.
Obed Lewis Herndon, A.B.
Abigail Maria Hess, A.B.
Alma Bertha Caroline Heuman
A.B.

Lucie Pearl Hickman, A.B.
Eugene S'uart Hight, B.S.
Inez Feltz Highfill, A.B.
Fanny Wilder Hill, A.B.
Nathan Richard Hill, B.S.
Nehemiah William Hill, B.S.
William Gottlieb Hiller, B.S.
Henry Elmer Hoagland, A.B.
Jonathan Huntoon Samuels Hodgson, B.S.

Ralph Edgar Holch, B.S. Leila Holland, B.S. Ethel Annetta Hollister, A.B. Jose Maria Homs, B.S. Joseph Douglas Hood, A.B. Robert Edward Hopkins, B.S. Benjamin Albert Horn, B.S. Daniel Tilden Hoskins, A.B. Russell Samuel Howard, B.S. Alexander Gibbon Hughes, B.S. Walter John Hughes, B.S. Anna Leo Hull, A.B. Walker Francis Hull, A.B. Hallie Walker Hyde, A.B. Wilbur Gilpin Hyde, B.S. Harold Stuart Ingram, B.S. Orma Archer Innis, A.B.

Ernst Otto Jacob, B.S., A.B. Charles Henry Jacobsen, B.S. Helen Dickson James, A.B. James Frank Janda, B.S. Ferdinand Jehle, B.S. Paul Frederick Jervis, B.S. George Guy Jeter, B.S. Esley Ebenezer Johnson, A.B. Charles Jay Jones, B.S. Lloyd George Jones, B.S. Opal Rogers Jones, A.B. Walter Raymond Jones, A.B. Arthur Irving Jordan, B.S. Elmer Juergens, B.S. Walter Jacob Kaar, A.B. Paul Kautz, B.S. Roy Herman Louis Keller, B.S. Charles Henry Keltner, A.B. Harvey Lamech Kessler, A.B. Karl Kiedaisch, B.S. Karl Parker Kipp, B.S. Stella Pauline Kleinbeck, A.B. Goldie Minnie Kneberg, B.S. William Koestner, B.S. Ethel Gyola Kratz, A.B. Augusta May Krieger, A.B. Ernst Theodore Krueger, A.B. William Prentice Kuhl, A.B. Ludwig Kummer, B.S. Walter Frederick Kunz, B.S. Carter Herbert Lamb, B.S. Zelma Ria Large, A.B. Harry Peter Larson, B.S. Martha Serena Larson, A.B. Mildred Leas, A. B. Ruel Forrest Lehman, B.S. Elmer Archibald Leslie, A.B. Lazarus Levinson, B.S. Charles Parker Levis, A.B. Goodrich Quigg Lewis, B.S. Richard Hanna Lewis, B.S.

Irving August Isaac Lindberg, A.B.Chester Arthur Lord, B.S. Walter Eugene Lord, B.S. Chase Whitney Love, A.B. Robert Lowe, B.S. Harold William Lynch, A.B. Herbert Thompson McAllister, B.S.William Knowlton McAllister, A.B.Fred H McClain, B.S. Lola DeWitt McClurg, A.B. Marcus Sanders McCollister, B.S. Dana Quick McComb, B.S. Ralph Nichols McCord, A.B. Charles Eugene McCormack, B.S. Elmer Massey McDonald, B.S. Lee Allen McElhiney, B.S. William Earl McKeever, B.S. Lilabel McKinney, A.B. John Crocker McLean, B.S. Floyd James Mackey, B.S. Hazel Denton Mandeville, B.S. Mary Elizabeth Mann, A.B., 1909. B.Mus. Wilbur Roy Manock, B.S. Earle W Martin, B.S. Roy Skinner Mason, B.S. Martha Marie Matthews, B.S. Louis Brawley Mayne, A.B. Alva Brace Meek, B.S. Mary Hazel Melrose, A.B. Lois Maia Miles, A.B. Edwin Morton Miller, A.B. Laura May Miller, B.S. William Christian Miller, B.S. Leslie Earl Miner, B.S. Paul Irving Miner, B.S. Nolan Dickson Mitchell, B.C.E., (Univ. of Arkansas, 1908) B.S.

Oliver William Mojonnier, B.S. Harry Albert Moore, B.S. Ellsworth Moore, A.B. Frances Milton Morehouse, A.B. Alta Hattie Morgan, A.B. George Morris, A.B. Herman Moschel, B.S. Royal Ross Moss, A.B. Charles Halvatious Mottier, B.S. Chester Wright Munson, B.S. Roy Kenneth Murdock, B.S. Thomas Edgar Musselman, A.B. George Harold Myrick, B.S. Essie Edwina Neal, A.B. Saidee Esther Nelson, A.B. Robert Edward Joseph Nihan, B.S.Clarence Eugene Noerenberg, B.S., 1907, A.E., 1909, A.B. Nell Alma Nollen, A.B. William Atkinson North, B.S. Charles Arthur Nye, B.S. Henry Dixon Oberdorfer, B.S. Charles Vincent O'Hern, A.B. George Frederick Onken, B.S. Martin Jacob Overholzer, B.S. Noah Webster Overstreet, B.S., (Miss. Agr. & Mech. Coll.), 1908, B.S. James Clyde Parmely, B.S. Florence Mae Parrett, A.B. Irene Mary Parsons, A.B., 1908, B.Mus. David Collins Patton, B.S. Harry John Paul, B.S. Paul Charles Peine, A.B. Carlysle Pemberton, B.S. Owen Earle Pence, A.B. Henry Penn, B.S. Eugene Strode Pennebaker, B.S. Olive Belle Percival, B.S. Albert Monroe Perkins, A.B.

Reba Niles Perkins, A.B. Harry Viggo Petersen, B.S. David Petrie, A.B. David Cook Petrie, B.S. Donald Alfred Pierce, B.S. Laura Estelle Pierce, A.B. Leonard George Pierce, B.S. Frank Loyer Pinckney, A.B. Ermin Fawcett Plumb, A.B. Fred Madison Poe, B.S. Albert Rumble Pollard, A.B. Ethel Claire Pond, A.B. Karl Lewis Ponzer, B.S. Henry John Popperfuss, B.S. Arthur Tucker Porterfield, B.S. Fred Cameron Pratt, B.S. Frank Davis Preston, A.B. Harold Bertram Prout, A.B. Clara Pruyn, A.B. William James Putnam, B.S. George William Rathjens, B.S. Frances Gerald Griffin Reardon, A.B.

William Seed Redhed, A.B.
Claude Hazlitt Reeder, B.S.
Howell Hiram Reeves, B.S.
Harry Jasper Reiger, B.S.
Amanda Barbara Renich, A.B.
Wendell Phillips Renner, A.B.
James Verney Richards, B.S.
Carl Barrows Richardson, B.S.
Edwin Brown Righter, B.S.
Oakley Beebe Rives, B.S.
Frank Anson Robbins, A.B.,

(Yankton College) 1907, B.S. Joseph Robbins, B.S. Kendall Edward Robinson, B.S. Carlos Nicolas Romero, B.S. Elizabeth Irene Rose, B.Mus. Webster Barclay Rose, A.B. Louise Henrietta Ross, A.B.

Daniel Maltby Rugg, B.S. Carrie LeVerne Rule, A.B. George Rutledge, A.B. William Amos Sawtell, B.S. Albert Butler Sawyer, Jr., B.S. William Fred Schaller, B.S. Charles Henry Schnetzler, B.S. George William Schoeffel, A.B. Otto William Schrieber, A.B. Otto Fred Schulzke, B.S. George Schuster, B.S. Peter Wolff Seiter, B.S. Bessie Estelle Shackell, A.B. Benjamin Shapiro, B.S. Edgar James Shaw, B.S. Leroy Briggs Sherry, A.B. Charles Culver Shields, B.S. Raymond Joseph Shields, B.S. Harry Erle Shinn, B.S. Orin Earl Shirley, B.S. Arcadie Jacob Shklowsky, B.S. John Raymond Shulters, A.B. Robert Lee Shute, B.S. Ruth Husted Signor, A.B. Harry Herbert Slawson, A.B. Arthur Lloyd Smith, A.B. George Harold Smith, B.S. Arthur Henry Sonntag, B.S. Frank Earl Sperry, B.S. Arthur Otto Spierling, B.S. Villa Mae Sprague, A.B. Robert Michael Spurck, B.S. Elmer Roy Stahl, A.B. Seymour Standish, B.S. Laura Annetta Stephens, A.B. James Donald Sterling, B.S. Grace Esther Stevens, A.B. Milton Leonard Stevenson, A.B. James Ross Stevenson, B.S. Myron Boyd Stewart, B.S. Edison Harris Stone, B.S.

Thomas Ralph Strobridge, B.S. John Strom, B.S. Walter Gottfrid Stromquist, A.B., (Bethany College) 1905, B.S. Earl Kellogg Stuart, B.S. Felix Jose Sumay, B.S. Hugo Ewald Surman, B.S. Ele D Swisher, A.B. William James Swisher, B.S. Francis Howard Swits, A.B. Warren L Talbot, A.B. Fred Reeves Tate, A.B. Dalla Alice Taylor, A.B. Ward Hastings Taylor, A.B. William Homer Terrey, B.S. Henry Spafford Thaver, B.S. Elmer John Thompson, B.S. Milton Winfield Thompson, A.B. Thomas Eugene Thompson, B.S. John William Thomsen, B.S. Ralph Earle Tietje, A.B. Delbert Mayo Tilson, B.S. Nellie Edith Tilton, A.B. Nanie Pearl Tipton, A.B. Harold Eugene Tobey, B.S., (Knox College) 1906, B.S. Khoo-din Su-peh Tsiang, A.B. Alvin Truesdell Tumbleson, B.S. Elkan Turk, A.B. Hubert Michael Turner, B.S. Lawrence Charles Turnock, B.S. Leon Francois Urbain, B.S. Robert Guy Van Doren, B.S. Bernard Carlyle van Pappelendam, B.S.

Irma Elizabeth Voigt, A.B.

Claude Levern Wagner, B.S.

James Robert Rathie Waldie, B.S.

Thomas William Walton, A.B. Lena Althea Walworth, A.B. Alwin Eugene John Wanderer, B.S.George Snyder Ward, A.B. David Wallace Warnock, B.S. Ludlow Joseph Washburn, A.B. Marguerite Watson, A.B. Lynn Andre Watt, B.S. Margaret Weinberg, A.B. George Richard Welch, B.S. Jacob Wendling, B.S. Frederick William Weston, B.S. Burton Cyrenious Job Wheatlake, B.S., (Greenville College) 1907, B.S.John Ezra Whitchurch, B.S. Florence Leone White, A.B. Otis Gunn Whitehead, B.S. Donald Francis Wiley, A.B. Charles Julius Willard, B.S. Arthur Edwards Williams, B.S. Clarence Foss Williams, A.B. Everett Williams, A.B. Glenn Richard Williams, B.S. Frank Wills, B.S. Hulda Catherine Witte, A.B. Otto Fred Wolf, B.S. Henry Clay Wood, B.S. Stephen Gaskell Wood, B.S. William Strong Wright, A.B. Minnie Yonge, A.B. Rose Jeannette Young, A.B. John Bennett Yowell, A.B. Juedan Tun-shou Zhen, A.B. Aaron Wilbur Zimmerman, B.S.

Charles M Walker, B.S.

Ernest DeWitt Walker. B.S.

# DEGREES IN LAW Conferred June 15, 1910

#### BACHELOR OF LAWS

Alphon Lester Anderson Thomas Chester Angerstein William Floyd Barnett, A.B., 1907 Charles Edmund Blaine, A.B. (Park College) 1906 Eugene Bland Claude Harold Brewer Rufus Samuel Dietrich Otto Frederick Roscoe Charles Frederick Augustus Henry Fridrichs Noah Gullett Percy Eli Gum Alpheus Gustin John Woodman Harris Rollin Moulton Haves Oscar William Hoberg Grant Johnson

Alba Allen Jones Bradley Jay Knight Orrin Hugh Lawler John Emmett Layden William Chester Maguire Christopher Mamer, Jr. Elisha Powell Norman John William Palmer Alfred Ray Patton James Michael Powers Fred Harold Railsback Percie Cobbs Rentfro Louis Rockwell Henry Ellis Shipley Edwin Leonard Wilson, A.B., 1908 George Vernon Wood George Fulton Zimmerman

#### DOCTORS OF LAW

Fred Parker Benjamin, A.B., Lyman Samuel Mangas, A.B., 1908 1908 Bernard Andrew Strauch, A.B., 1908

#### BACHELORS OF LIBRARY SCIENCE

Conferred June 15, 1910

Mary Constance Bigelow, A.B., 1902 Alice Ledlie Blair Elizabeth Sarah Bryan, A.B., 1908 John Simeon Cleavinger, A.B.,

John Simeon Cleavinger, A.B., 1909 Bertha Mabel Schneider, A.B.
(Ohio State Univ. 1907)
Lucy Gray Wilson
Nelle Mae Wilson
Margaret Crowell Wood

# DEGREES IN MEDICINE, DENTISTRY, AND PHARMACY DOCTORS OF MEDICINE AND SURGERY

Degrees Conferred June 7, 1910, in Chicago

Franklin William Adams Clesson Cushman Atherton, M.D. Lewis Harlan Athon Jose P. Bantug An.il Chandra Basu Axel Ferdinand Benson Emil William Bentzien Robert Lambert Borchert Ethel Louvier Boren William Horrace Bradley Wesley Edward Burnett, B.S. William Thomas Carpenter, Ph.G., D.O Elizabeth D. Carroll Henry Lewis Carruth Lee Winifred Cary Arthur A. Charbonneau Earl George Clegg, LL.B. Joseph Samuel Cohn Francis Joseph Conroy Paul McAllister Currer Gervasio Santos Y Cuyugan Edward Felix Czeslawski, A.B. Edna Valeria Dale John Franklin Davis Daniel De La Paz Louis Belfair Derdiger, M.D. August Frederick Doerann, M.D. Frank Gerald Douglass Jennie A. Duncan Jacob William Eede, M.D. Clarence Oscar Epley William George Epstein Marion Eleanor Farbar Walter Irving Firey Manuel Directo Foronda Mabel Gray Foster

William Bernard Funk, Ph.G., M.D. Samuel Lee Gabby Frank Nathan Gaggin, B.S., M.D. Marcelino Mendoza Gallardo. James Charles Gillespie George William Gindele William Francis Glasier Leonard Henry Graner Arthur Francis Grove Robert Scott Gregg, M.D. William August Gross William Roy Hedrick Russell Rulo Heim William Louis Hercik Sarah Longworth Hosmon Gordon Henry Jackson Harris Ainsworth Jacobson Milton D. W. Jeffs Arthur Greene Johnson Grover Erman Johnson Alvin Thomas Jordan Cecil J. Johnston James Matthew Juvinall John Matthew Kara Jesse Earl King Zanvill David Klopper, M.D. Batholomew Kunny Ernest Haskell Kyle Benjamin Franklin Largent, A.B. John Calvin Law, M.D. Ethel Mae Laybourne Thomas Maurice McFarland Leahy Albert Arthur LeBeau Philip Max LeBeau

Max Isaac Leviton

William Berry Lewis Western Cass Loomis Aaron Tomlin Lukins Robert Childers McElvain Charles Patrick McGarry Helen O'Sullivan McGarry Walter Caraway McKee Thomas Garfield McLin, B.S. Raymond William McNealy Carmelo S. Reyes Y Malabanan George Elzear Maley, B.S. William Charles Meacham Dainel Edward Meany Julius Felix Meyer Richard Jasper Miller Otis Andrew Moore, B.S. Walter Dean Murfin William Harry Nelson Frank William Nickel Dennis Michael O'Donnell Florian George Ostrowski, A.B. James Wight Packard Frederick Charles Parker Harry Archibald Pattison, M.D. Albert Pearson Thomas Arthur Pettepiece Howard Herman Quaife, M.D., D.D.S. Philip Graham Reedy

John William Righeimer Albert John Roemisch John Clifford Rogers William Thomas Rothwell William Daniel Schafer Clara Margaret Schunk Sydney Borden Scott William Thomas Seeley William Joseph Siegler Sidney Albert Smith Paul Arthur Soelberg Zeph Stanley Charles Elmer Stevens Amer Mills Stocking, A.M., M.D. Frank Lee Stone Guy Stone, M.D. George J. Stubenrauch, Ph.G. Howard Russell Sword Lawrence Granger Sykes Frank Thomas Gordon Graham Thompson, B.S. Mariano Tolentino Sidney Newton Trockey John Hubert Vallancy John Marinelli Vitullo Benjamin John Voight John Emmet Walsh Richard Friedrich Weissbreuner Edward William White

#### DEGREES IN DENTISTRY

## DOCTORS OF DENTAL SURGERY

Degrees Conferred June 2, 1910, in Chicago

William Hayward Andrews Benjamin Isidore Berlin Alonzo Strother Brock Alexander Cecil Browne William P. Coghlan Rufus S. Farrier

Homer Erastus Rich

Hugh Lafred Larkin Lloyd Warner Latham Victor Lawrence Lee James Anthony McNulty Marie Meadow Horace Edmund Metzner

William Hansford Wilson

Mervil Lloyd Mooney Emil Ludwig Nordeen James Anthony O'Hora Albert Max Rotzoll Samuel Irwin Russakov Harry Burns Shafer Frank James Smith Walter Leonard Taft George Henry Vann

#### DEGREES IN PHARMACY

Degrees Conferred April 28, 1910, in Chicago

Frank Annibale, Ph.G. William Elmer Arkins, Ph.G. (Class of 1909) John Simon Benson, Ph.G. Conrad Au ust Berg, Ph.G. Joseph Arnold Blatt, Ph.G. (Class of 1908) Centennial John Bottom, Ph.G. Bryce Carpenter, Ph.G. B. Ross Coal, Ph.G. Urban Volpert Comes, Ph.G. (Class of 1909) Leslie Ray Crawford, Ph.G. (Class of 1908) Charles Clifford Cummings, Ph.G. Selma Nelson Fidler, Ph.G. (Class of 1908) Edward George Fingl, Ph.G. (Class of 1909) John Peter Golombiewski, Ph.G. Louis Evan Halpern, Ph.G. (Class of 1909) Charles Hibbs, Ph.G. (Class of 1909) Finis Hindman, Ph.G. Paul Reinhold Josenhaus, Ph.G. Albert Clinton Kauffman, Ph.G. William Pierce Knox, Ph.G. Victor Albert Kremer, Ph.G. Carl William Lutz, Ph.G.

Lucien DeWayne Lyons, Ph.G. Roy H. McVay, Ph.G. Thomas Raymond Maloney, Ph.G. Leon Arthur Marks, Ph.G. Jacob Clayton Marshall, Ph.G. Vincenza Margand, Ph.G. Irvin Henry Miller, Ph.G. Charles Joseph Mrazek, Ph.G. Edwin Sydney Myerson, Ph.G. Theodore Bernard Niesen, Ph.G. William Albert Perkins, Ph.G. Roscoe Conklin Phillips, Ph.G. Vito Pisani, Ph.G. Victor Roth, Ph.G. Jacob Louis Sanford, Ph.G. Frederick William Schaffarzick, Ph.G.Rose Phillips Schmid, Ph.G. John Forrest Scott, Ph.G. Walter C. Seibert, Ph.G. Benjamin Thesen, Ph.G. Arthur B. Vance, Ph.G. Henry Leonard Venn, Ph.C. Charles Elmer Walter, Ph.G. John William Wiehn, Ph.G. Benjamin H. Williams, Ph.G. George Albert Williams, Ph.G. Elmer Norris Winborn, Ph.G. Charles Robert Zimmerman, Ph.C.

## DEGREES IN THE GRADUATE SCHOOL

#### MASTERS OF ARTS AND SCIENCE

## Conferred June 15, 1910

William Sylvester Adams, A.B., (Greenville College), 1907, A.M.

Benjamin McAlester Anderson, Jr., A.B., (Univ. of Missouri), 1906, A.M.

Zelda Maude Ayres, A.B., (Lake Forest Coll.), 1909, A.M.

Margaret Lewis Bailey, A.B., (Cornell Univ.), 1903, A.M.

Anna Mabel Ballans, A.M., (Knox College), 1909, A.M.

Margaret Esther Ballew, A.B., (Hedding College), 1909, A.M.

Philip Stephen Barto, A.B., 1906, A.M.

Garland Armor Bricker, B.Ped., (Lima College), 1907, A.M.

William Everett Britton, A.B., (McKendree College), 1909, A.M.

William Hemphill Campbell, A.B., (Monmouth College), 1894, A.M.

George Ernest Carscallen, A.B., (Wabash College), 1906, A.M. Orlo Dorr Center, B.S., 1905.

Orlo Dorr Center, B.S., 1905, M.S.

Margaret Isabel Chase, A.B., (Knox College), 1909, A.M.

Vida Lucile Collins, A.B., (Univ. of Michigan), 1907, A.M.

James Austin Coss, A.B., (Ill. Wesleyan Univ.), 1903, M.S.

Robert Alexander Cummins, B.S., (Ill. Wesleyan Univ.), 1909, A.M. Ray Maxwell Dillow, A.B., (Lom-bard College), 1909, A.M.

Elzy Franklin Downey, A.B., 1909, M.S.

Margaret Steel Duncan, A.B., (Bryn Mawr Coll.), 1908, A.M.

Jasper Fay Eastman, B.S., (Mass. Agr. Coll.), 1907, M.S.

James Everett Egan, A.B., (De Pauw Univ.), 1908, A.M.

Flora Edith Farmer, A.B., (Ewing College), 1909, A.M.

Stanley Prince Farwell, B.S., 1907, M.S.

Charles Albert Fischer, A.B., (Wheaton College), 1905, A.M.

Sara Carolyn Fisher, A.B., (Lombard College), 1909, A.M.

Claire Vesta Forrey, A.B., (Miami Univ.), 1909, A.M.

Chester Hume Forsyth, A.B., (Butler College), 1906, A.M. Walter Lee Gaines, B.S. 1908

Walter Lee Gaines, B.S., 1908, M.S.

Mary Louise Gay, A.B., 1906, A.M.

Frederic William Gill, B.S., 1906, M.S.

Hugh Byron Gordon, A.B., (Miami Univ.), 1908, M.S.

Bessie Rose Green, A.B., 1907, A.M.

Alta Gwinn, A.B., 1907, A.M. Harry Gray Hake, B.S., 1907, M.S.

Nelson William Hepburn, B.S., 1907, M.S.

Henry Elmer Hongland, A.B., 1910, A.M.

Paul Alexander Hoffman, B.S., 1909, M.S.

Oliver Sherman Hubbart, B.S., (Northwestern Univ.), 1905, A.M.

Ola Estelle Huston, A.B., (Carthage College), 1909, A.M.

Joseph Gladden Hutton, B.S., (*Univ. of Chicago*), 1908, M.S. Simon H. Ingberg, C.E., (*Univ.* 

of Minnesota), 1909, M.S. John Webb Irwin, A.B., (Wa-

bash College), 1909, A.M. Andrew Jacobson, B.S., (St.

Olaf College), 1906, M.S. Herman Gerlach James, A.B.,

1906, J.D., (Univ. of Chicago), 1909, A.M.

Truman Nathaniel Jones, A.B., 1909, A.M.

Jacob Garrett Kemp, A.B. 1906, A.M.

Frederick William Kressman, B.S., 1909, M.S.

Benjamin George Lehenbauer, A.B., (James Milliken Univ.), 1909, A.M.

Edith Leonard, B.S., 1906, M.S. Mary Ola McGinnis, A.B., 1902, A.M.

Josiah Main, B.S., 1907, A.M.
Arselia Bessie Martin, B.S.,

Arselia Bessie Martin, B.S., 1909, M.S.

Arthur Chester Millspaugh, A.B., (Albion College), 1908, A.M. Jesse Edwin Moncrieff, B.S., (Shurtleff College), 1909, A.M.

Clyde Hadley Myers, B.S., (Ill. Wesleyan Univ.), 1907, M.S.

Herbert Tirrill Osborn, A.B., (Ohio State Univ.), 1909, A.M. Irene Mary Parsons, A.B., 1908, A.M.

Vere Dorothy Perring, A.B., 1909, A.M.

Eleanor Farrand Perry, A.B., 1909, A.M.

Lorinda Perry, A.B., 1909, A.M. Barney Simonson Radeliffe, A.B., (Miami Univ.), 1908, M.S.

Max Ravitch, A.B., (Univ. of Missouri), 1909, A.M.

Edwin George Schafer, B.S., (Kansas Agr. Coll.), 1907, M.S.

Eleanor Bryce Scott, A.B., (Augustana College), 1909, A.M.

Willis Appleford Slater, B.S., 1906, M.S.

Harold Edwin Stevens, B.Agr., (Univ. of Kentucky), 1906, M.S.

Earle Kenneth Strachan, B.S., (Worcester Poly. Inst.), 1908, M.S.

Frank Waters Thomas, A.B., (Indiana Univ.), 1905, A.M.

Charles Manfred Thompson, A.B., 1909, A.M.

Vincent Hollis Todd, A.B., (Harvard Univ.), 1907, A.M.

Eston Valentine Tubbs, A.B., (Northwestern Univ.), 1909, A.M.

Harley Jones VanCleave, B.S., (Knox College), 1909, M.S.

Sidney Walter Wright, A.B., 1901, A.M.

### PROFESSIONAL DEGREES IN ENGINEERING

John Cabel Cromwell, B.S., 1886, M.E.

Walter Thomas Bailey, B.S., 1904, M.Arch.

Raymond William Dull, B.S., 1897, M.E.

Antonio Guell, M.E., M.S., (Lou-

isiana State Univ.), 1907, E.E. Ludwig Gutmann, B.S., 1904, E.E.

George Joseph Ray, B.S., 1898,

John Jefferson Richev. B.S.. 1903, C.E.

William Doke Scott, B. S., M.E., (Virginia Poly. Inst.), 1908, M.E.

Ralph Steele Shepardson, B.S., 1897, M.Arch.

Roy Harley Slocum, B.S., 1900, C.E.

Carroll Carson Wiley, B.S., 1904, C.E.

## DOCTORS OF PHILOSOPHY

1908

Herbert LeSourd Creek, A.M., (Butler College), 1905 Clarence George Derick, M.S.,

1909 Thomas Reuben Ernest, A.M.,

1908 William Charles Hilmer, A.M.,

(German Wallace Coll.), 1903 Alfred Wilhelm Homberger, A.M., 1908

Elizabeth Ruth Bennett, A.M., Paul Edward Howe, A.M., 1907 Emma Gertrude Jaeck, A.M., 1908

> John Anton Kostalek, A.M., (Univ. of Wisconsin), 1908

> Henry Albright Mattill, A.M., (Western Reserve Univ.), 1907 Edward Beattie Stephenson, M.S.,

(Knox College), 1907 ✓ Elmer Howard Williams, A.M., (Univ. of Wisconsin), 1906

### HONORARY DEGREES

Lester Paige Breckenridge, Ph.B., M.A., Doctor of Engineering Mrs. Ella Flagg Young, Ph.D., Doctor of Laws

Isham Randolph, Doctor of Engineering

LL.D....

## SUMMARY OF DEGREES CONFERRED 1910

## BACCALAUREATE DEGREES

BACCALAUREATE DEGREES		
A.B., in the College of Literature and Arts.  A.B., in the College of Science  B.S., in the College of Science  B.S., in the College of Engineering  B.S., in the College of Agriculture  B.Mus., in the School of Music.  DEGREES IN LAW	36 22	<del>40</del>
LL.B	3	37
DEGREES IN LIBRARY SCIENCE B.L.S.	8	8
DEGREES IN MEDICINE, DENTISTRY, AND PHARMACY		
M.D. 130 Ph.C. D.D.S. 21 Ph.G.		205
DEGREES IN THE GRADUATE SCHOOL		
Master's Degrees		
A.M	24	7
PROFESSIONAL DEGREES IN ENGINEERING		
M.Arch. 2 E.E. C.E. 4 M.E.		11
DOCTORATES		
Ph.D	12	12
HONORARY DEGREES		3

...... 1 D.Eng......

## SCHOLARSHIPS 1909-10

#### HONORARY SCHOLARSHIP

Tazewell Hulda C. Witte

Pelcin

### COUNTY SCHOLARSHIPS

Adams Lelah Brownfield Champaign Adams Charles Kav Hewes Quincy Adams Margaret Katherine Theilen Camp Point Alexander Erich Wilhelm Schwartze Cairo Alexander Allen Little Barnes Harrisburg Bond Mary Cordelia Barry Champaign Bond Clarence P. Berolzheimer

> Chicago Heights Pontiac

> > Beardstown

Chicago

Manlius

Urbana

Simon A. Schickedanz Alice Biester Garden Prairie Paul Revere Croll Harold F. Crooks Saidee E. Nelson Lula B. Dexter Minnie J. Bollman Edgar N. Drew Cloyd C. Smith Gladys Eade Ewell G. Franken Floyd William Mohlman Bernice Harrison Arthur Hagener Florence L. White Elmer F. Heater Elwin Valentine Kratz George W. Mayes Robert B. Fizzell Albert S. Fry

Champaign Martinton Mt. Carroll Elmhurst Chandlerville BeardstownChampaign Reardstown Rantoul

Champaian TaulorvilleUrbanaParis Marshall

Champaign

Champaign

588

Willis O. Gordon

Francis Irwin Honderich

Boone Boone Boone Brown Bureau

Bureau Calhoun

Calhoun Carroll Carroll Cass

Cass Champaigu Champaign

Champaign Champaign

Christian

Clark

Clark

Cass Cass

Christian

Clay	Louise W. Garrett	Champaign
Clinton	William J. Putnam	Pana
Clinton	Forrest C. McNary	Martinsville
Clinton	Faye Charles Hare	Gilman
Coles	Nelle G. Bouscher	Champaign
Coles	Arthur C. Kelley	Urbana
Coles	Emmet J. Healy	Chicago
27th Senatorial District	Joseph E. Huber	Champaign
31st Senatorial District	Joseph F. Chinlund	Chicago
Cook	Leonard Mauel	Chicago
Cook	Milton H. Froelich	Chicago
Cook	Lloyd G. Smith	Chicago
Cook	Mamie Ward	Irving Park
Crawford	Anna L. Hull	Martinsville
Crawford	Elvin E. Boon	Chrisman
Crawford	Caroline Luther	Savoy
Crawford	Arthur Everett Holch	Gilman
Cumberland	Fanny W. Hill	Champaign
Cumberland	Forest A. Fisher	Greenup
Cumberland	Anna L. Peck	Champaign
Cumberland	Franklin A. Jolly	Champaign
DeKalb	Ethel C. Pond	Sycamore
DeKalb	Malinda Whittaker	Cortland
DeWitt	Arthur E. Burwash	Savoy
DeWitt	Merle E. Nebel	Clinton
Douglas	Lucy E. Lewis	Danville
Douglas	Frederick M. W. Wascher	Champaign
Douglas	Roscoe E. Bailey	Newman
DuPage	Goodrich I. Lewis	Wheaton
DuPage	Fred D. Lewis	Wheaton
DuPage	Charles Rand	Lombard
Edgar	Orin E. Shirley	Paris
Edgar	William T. Rogers	Hume
Edgar	Mary Louise White	Chrisman
Edgar	Guy S. Little	Sullivan
Edwards	Charles Clyde Rice	Bone Gap
Edwards	Edward R. Luney	DeKalb
Effingham	Bertha M. Jones	Champaign
Effingham	Redick W. Marten	Tolono
Fayette	Harry C. Boardman	Plainfield
Fayette	Howard S. Davis	Vandalia
Fayette	Fred G. Gordon	Vandalia
*		

	CI II D II	** 7.11
Fayette	Clarence H. Belknap	Vandalia
Ford	Albert F. Laurence	Paxton
Ford	Ernest F. Lindblom	Paxton
Ford	Charles A. Lamb	Paxton
Ford	Mary Agnes Murphy	Sullivan
Franklin	Ralph J. Garber	Gibson
Franklin	Herbert C. Peterson	Chicago
Fulton	George O. Cogswell	Champaign
Fulton	Frank H. Wilson	Champaign
Fulton	Erwin A. Reed	Chicago
Gallatin	William W. Brakefield	Chrisman
Gallatin	Walter R. Reitz	Chicago
Greene	George B. Allen	Roodhouse
Greene	Lyman G. Wheeler	Carrollton
Grundy	Royal R. Moss	Morris
Grundy	Lent A Walworth	Morris
Grundy	Abe Rosset	Chicago
Hamilton	Harwell C. Thompson	Harvey
Hancock	Frank D. Preston	Carthage
Hancock	Florence G. Baxter	Nauvoo
Hancock	Howard D. Valentin	Oak Park
Hardin	Walter Charles Voss	Chicago
Henderson	Claude H. Watts	Saunemin
Henry	Elder L. Swanson	Paxton
Henry	Arthur E. Randall	Cambridge
Henry	Edith I. Sendenburgh	Champaign
Iroquois	Donald A. Pierce	Watseka
Iroquois	Frederick Lindley Morgan	Loda
Iroquois	William C. Adams	Watseka
Jackson *	Henry Stein, Jr.	Murphysboro
Jasper	Elmer A. Leslie	Tolono
Jasper	Charles Joe Connor	Newton
Jefferson	Charles L. Maxey	Mt. Vernon
Jo Daviess	Bessie Shackell	Galena
Jo Daviess	Ambrose C. Stahl	Galena
Kane	Walter E. Deuchler	Aurora
Kane	Glen David Bagley	Elgin
Kane	Charles J. Pankow	Elgin
Kankakee	Fred H. Whittum	Herscher
Kankakee	John E. Wright	Herscher
Kendall	Vera J. Snook	Ottawa
Kendall	Leo M. Apgar	Elgin
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Moultrie

Sullivan

LaSalle	Robert L. Shute	Ottawa
LaSalle	William S. Watson	Ottawa
LaSalle	Seth D. Abbott	Sheridan
LaSalle	Charity Sage	Ottawa
Lawrence	William S. Redhed	Tolono
Lawrence	Edward M. Jasper	Newton
Lawrence	Frances Kirkwood	Lawrence ville
Lee	Edwin M. Miller	Geneva
Lee	Louise A. James	Amboy
Livingston	Herman Moschel	Pontiac
Livingston	Fred J. Foersterling	Dwight
Livingston	Orland I. Ellis	Dwight
Livingston	DeWitt E. Bell	Pontiac
Logan	Vern L. Applegate	Atlanta
Logan	Albert A. Applegate	Atlanta
McDonough	Ruth M. Burns	${\it Macomb}$
McHenry	Grace E. Stevens	Marengo
McHenry	Joseph D. Hood	Chicago
McHenry	Dean Parkhurst Woleben	
	Ci	hicago Heights
McLean	Bella S. Turk	Litchfield
McLean	Leo Beethoven Hedges	Colfax
Macon	James D. Sterling	Maroa
Macoupin	Warren E. East	Maroa
Macoupin	Leland M. Wooters	Carlinville
Madison	Julius John Mojonnier	Highland
Marion	Meda F. Gross	Atwood
Marshall	Henry Tullis Parrett	We non a
Mason	David Petrie	Mason City
Mason	Ethel A. Ranson	Havana
Massac	Edward W. Brown	Metropolis
Massac	Lloyd Lannes Helm	Metropolis
Menard	Edna E. Neff	Petersburg
Mercer	John W. Simmons	Keithsburg
Mercer	Izora Lee	Aledo
Monroe	Clark B. Stahl	Galena
Montgomery	Grover C. Rice	Irving
Montgomery	Elkan Turk	Litchfield
Montgomery	Alva L. Prickett	Litchfield
Morgan	Paul E. Johnston	Jackson ville
Moultrie	John Edson Millizen	Sullivan
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Paul Chipps

Marion

Chicago

Bloomington

Williamson

Winnebago

Winnebago

Ogle	Jessie B. McRobie	Chicago
Ogle	Ralph Walker Booze	Sullivan
Peoria	James Douglas Sheppard	Peoria
Perry	Charles M. Bell	Champaign
Piatt	Bessie F. Cline	Monticello
Piatt	Scott Champlin Taylor	Bement
Piatt	Wayne Isaac Kirby	Cerro Gordo
Pike	Amelia Louise Gay	Rock Port
Pike	Walter Andrew Shewhart	New Canton
Pope	Rex Warfield Cox	Bement
Pulaski	Wilbur R. Manock	Farmer City
Putnam	Hannah B. Berolzheimer	- 3
	Ch	icago Heights
Randolph	Miriam Gerlach	Chester
Randolph	Plascie Schoolcraft	Chester
Randolph	Mabel A. Dyer	Chester
Richland	Carl Colvin	Calhoun
Richland	Edward Kitchell Witcher	Olney
Rock Island	Bert A. Miller	Forrest
Rock Island	Frederick A. Hagedorn	Rock Island
Saline	Charles L. Morgan	Champaign
Schuyler	Simon P. Weinberg	Rushville
Scott	Claude H. Reeder	Watseka
Shelby	Lois R. Webber	Shelbyville
Shelby	Ralph E. Tietje	Urbana
Tazewell	Eugene S. Hight	Delavan
Tazewell	Roscoe Harrison Albright	Minier
Tazewell	Louise M. Nierstheimer	Pekin
Vermilion	Charles F. Ferris	Danville
Vermilion	Sarah E. Loutzenheiser	Danville
Vermilion	Judd Preston Faurot	Danville
Wabash	Ray Barnes Willis	Mt. Carmel
Wayne	Laura E. Pierce	Gifford
White	Mary H. Melrose	Grayville
White	Walter B. Worsham	Paris
Whiteside	Francis D. Abbott	Morrison
Whiteside	Edgar Hermann	Sterling
Whiteside	Ellis J. Potter	Morrison
Will	Arthur M. Brunson	Joliet
Williamson	Henry D. Oberdorfer	Marion
Williamson	Oliver Runk	Sterling

Loyd Paul Page

Harold B. Chaney

Henry S. Thayer

## GENERAL ASSEMBLY SCHOLARSHIPS

## (Appointees Nominated by Members of the General Assembly)

,	* *	•	
1st	District	Charles W. Brayton	Blue Island
2nd	District	Seymour A. Jacobson	Chicago
2nd	District	Martin I. Mix	Chicago
5th	District	Donald J. Smith	Chicago
6th	District	Frank C. Gates	Chicago
6th	District	C. H. Knowles	Chicago
6th	District	Margaret Dupuy	Chicago
6th	District	Paul C. H. Kircher	Chicago
6th	District	Leonard V. Newton	Chicago
7th	District	Louis A. P. Harms	Dolton
7th	District	Everett S. Lee	Wilmette
7th	District	James Whelan	Chicago Heights
8th	District	Fred B. Rosecrans	Waukegan
Sth	District	Edward W. Jones	~ Ravinia
8th	District	Herbert C. Beck	Harvard
Sth	District	Isador Raffin	Waukegan
8th	District	George Seiler	Woodstock
9th	District	Albert F. Westlund	Chicago
10th	District	Francis M. Swits	Rock ford
10th	District	Kendall E. Robinson	Rock ford
10th	District	John L. Bear	Rock ford
11th	District	Maurice Bebb	Chicago
12th	District	Charles N. Arnold	Galena
12th	District	William Tack	Savanna
13th	District	Henry Penn	Chicago
13th	District	Merlin C. Aleshire	Chicago
13th	District	Cylde Lynn Way	Chicago
13th	District	Frank X. Loeffler	Chicago
13th	District	Elmer Coffey	Blue Island
14th	District	Henry G. W. Muschler	Aurora
14th	District	Mary Anna Haan	Aurora
15th	District	Edward A. T. Kircher	Chicago
15th	District	Gustav Fornoff	Cricago
16th	District	Edwin B. Righter	Saunemin
16th	District	Karl L. Ponzer	Henry
16th	District	Cyril Agard Burns	Fairbury
	District	Homer Boys Hull	Saunemin
	District	Emma A. Krause	Secor
17th	District	Charles Gordon	Chicago

18th	District .	Camillo C. Christensen	Peoria
18th	District	Ross E. Cullings	Elmwood
18th	District	Frederick John Schlink	Peoria
18th :	District	George John Zimmerman	Peoria
18th	District	Nathan Seidenberg	Peoria
18th	District	Arthur L. Epstein	Peoria
19th	District	John Francis Seifried	Maywood
19th :	District	Arthur Lyle Israel	Chicago
19th	District	Clarence W. Fick	Berwyn
19th :	District	Robert B. Moir	Chicago
19th	District	Charles Lewis Walduck	Chicago
19th	District	Harry Wiersma	Berwyn
20th	District	Samuel Harrie Whittum	Herscher
20th	District	Kittie May Leffel	Kankakee
20th	District	Clarence Scholl	Watseka
21st ]	District	Stanley L. Pogue	Sullivan
21st ]	District	Carl Sievert	Blue Island
22nd	District	George G. Jeter	Paris
22nd	District	Earl K. Burton	Isabel
22nd	District	Milton W. Thompson	Danville
22nd	District	David Alonzo Loutzenhiser	Danville
22nd	District	Geneva F. Hoult	Chrisman
23rd	District	Charles W. Fender	Westfield
24th	District	Daniel M. Rugg	Champaign
24th	District	John P. Sheay	Bement
24th	District	Welsh W. Manspeaker	Champaign
24th	District	Jay F. Hollingsworth	Sullivan
24th	District	Elmer F. Campbell	Lovington
24th	District	Armon J. Crawford	Tolono
25th	District	Louis A. Boettiger	Chicago
25th	District	Francis H. Bulot	Chicago
26th	District	William W. Speedie	Gibson City
26th	District	Raymond R. Lundahl	Gibson City
26th	District	Mildred Clayton Seyster	Kempton
26th	District	Earl Sewell	Normal
28th	District	J. Warner Foley	Clinton
28th	District	John Thomas Kendall	Farmer City
28th	District	Frank H. Lindeman	Farmer City
28th	District	Roy Orvill Allen	Decatur
29th	District	E. A. Glenz	Chicago
30th	District	Loris Ernestine Bollan	Havana
30th	District	Eda Borgelt	Havana

30th	District	Margaret Weinberg	Rushville
30th	District	Hazel E. Alkire	Greenview
30th	District	Ernest A. Rich	Washington
32nd	District ·	Lois M. Miles	Bushnell
32nd	District	A. Sophie Rogers	Bushnell
32nd	District	William L. Frank	Carthage
32nd	District	Clarence Rush Horrell	Macomb
33rd	District	Paul J. Graham	Aledo
33rd	District	Morton R. Carlson	Moline
3 <b>3r</b> d	District	Walter I. Reeves	Moline
33rd	District	George Mengel	Moline
33rd	District	Charles Stanley King	Rock Island
34th	District	Hamilton Fishback	Marshall
34th	District	Ruth L. Davison	Marshall
34th	District	Frank J. Bassett	Tuscola
35th	District	William C. Miller	Sycamore
35th	District	Eva L. Robertson	Morrison
35th	District	George Breshnahan	Sterling
36th	District	John H. Bornmann, Jr.	Quincy
36th	District	Nathaniel Kelly Dunham	Pitts field
36th	District	J. Allan Nevins	Camp Point
36th	District	A. S. Nevins	Camp Point
37th	District	Walter J. Kaar	Princeton
37th	District	Mayne S. Mason	Buda
37th	District	Philip L. Ogden .	Tiskilwa
37th	District	Eckles Palmer	Princeton
37th	District	Willard Waterous	Galva
37th	District	Hugh Leon Cole	Geneseo
37th	District	Roland Humphrey Boyd	Sheffield
3Sth	District	Harrison O. Flatt	Carrollton
38th	District	Elizabeth B. Fletcher	Bunker Hill
38th	District	Ralph Edgar Brown	Hillsboro
39th	District	Albert H. Parks	Ottawa
39th	District	James V. Stevenson	Streator
39th	District	Eugene H. Leslie	Ottawa
39th	District	Hilda M. Gutting	Ottawa
	District	Melvern D. Overmier	Mt. Auburn
40th	District	George A. C. Barth	Pana
40th	District	Harry L. Tate	Vandalia
<b>4</b> 0th	District	Charles T. Anderson	Taylor ville
40th	District	Elbert Neu	Taylor ville
40th	District	Harry E. Vandeveer	Edinburg

40t	h District	Homer Runkel	Champaign
41s	t District	Harold B. Prout	Wheaton
41s	t District	Mary M. Spangler	Joliet
42n	d District	Omar Gaston	Kell
42n	d District	Archibald McGinnis	Effingham
42n	d District	Verena Gertrude Volmer	Carlyle
43r	d District	Charles V. O'Hern	Vermont
43r	d District	Charles McGrew	Lewistown
44t]	n District	Edgar G. Brands Prair	irie du Rocher
44t	District	Earnest C. McElvain	Pinckneyville
45tl	District	Louis Hill Gourley	Springfield
45tl	1 District	Clarence J. Wolff	Springfield
46tl	n District	Clarence A. Morgan	Jefferson
46tl	n District	Carl W. Allison	"Olney
46tl	n District	David J. Campbell	Olney
46tl	District	Frank Fentz	Olney
46tl	District	Theodore A. Kritchey	Olney
47tl	District	Arthur W. Eisenmayer, Jr.	
47tl	District	Rolland W. Griffith	Granite City
47tl	District	Walter Roman, Jr.	Granite City
47tl	District	Leland S. Stallings	Granite City
47tl	District	Carl H. Wolf	Edwardsville
48th	District	Charles N. Hill	Cave-in-Rock
48th	District	Emery F. Holt	Champaign
49tl	District	L. H. Adrion Buschman	Belleville
50tl	District	Charles L. Hudelson	Benton
50th	District	Clyde Holland Hunter	Carterville
50th	District	Joe P. Benson	Herrin
50th	District	Robert Allyn Walker	Herrin
50tł	District	Frances R. Ohrum	Cairo
51st	District	Jacob W. Myers	Harrisburg
51st	District	Frank B. Leonard, Jr.	Metropolis
51st	District	Joseph Howard Hinshaw	Harrisburg
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## AGRICULTURAL SCHOLARSHIPS

Adams	Lester C, Shupe	Paloma
Alexander	John R. Wells	Harvard
Alexander	Herbert Arthur Cate	Camp Point
Bond	Samuel Abrams	$\overline{Urbana}$
Bond	Louis Edwin Wise	Beavercreek
Boone	Hugh O'Donnell	Belvidere
Boone	Carl Oscar Krietmeyer	Quincy

Brown		Roy Albert Morton	Golden
Bureau	•	Fred W. Burnett	Longview
Bureau		George Lawrence Norton	Ne ponset
Bureau		A. J. Herbolsheimer	Princeton
Calhoun		Roy H. L. Keller	Quincy
Calhoun		Thurman E. McElroy	Bardolph
Calhoun		Guy H. Fisher	Savoy
Carroll		Ross Barber Hostetter	Mt. Carroll
Carroll		Horace B. Ingalls	Urbana
Cass		Eli Horace Virgin	Virginia
Champa	ign	John W. Potter	Champaign
Champai	-	C. Everman Woolman	Urbana
Champa	0	H. F. T. Fahrnkopf	Ivesdale
Christia	-	Chester Raymond Chamb	ers
		•	Pierson Station
Christia	n	Mariou W. Arterburn	Mattoon
Clark		Charles S. LeSure	Olney
Clark		Arthur Ritchie Green	Lisle
Clark		Cecil Raymond Sinclair	Prentice
Clay		Earl H. Joice	Chicago
Clinton		Robert Wiltshire Rathbu	
Clinton		Walter E. Heyer	Fisher
Coles		George T. Bond	Charleston
Coles		Harry L. Bond	Charleston
Coles		Charles Henry Belting	Charleston
0	ng. District	Robert Allan Brown	Morton Park
	ng. District	Meldo H. Whitmore	Chicago
	ng. District	Myron B. Stewart	Englewood
	ng. District	Harold R. Leonard	Chicago
	ng. District	Harry M. Parsons	Chicago
	ng. District	Otto Schwartz	Maywood
	ng. District	James R. R. Waldie	Chicago
	ng. District	William H. Sawtell	Chicago
	ng. District	William P. Keeler, Jr.	Chicago
	ng. District	Charles M. Lobaugh	Englewood
	ng. District	Edward F. Torgerson	Chicago
	ng. District	Fred A. Schuster	LaGrange
	ng. District	Raymond Lee Webb	Antioch
	ng. District	F. C. Grannis	Chicago
	ng. District	Harold Earl Davis	Maywood
	ng. District	Allen W. Davis	Maywood
	ng. District	Forrest G. Farr	Chicago,

7th Cong. District	Henry C. Carr	Chicago
8th Cong. District	Henry B. Shippy	Chicago
8th Cong. District	Victor L. Wasko	Chicago
9th Cong. District	Orville T. Bright, Jr.	Chicago
9th Cong. District	Harry E. Heidhues	Chicago
10th Cong. District	Matthew Simpson Parkhurst	Evanston
10th Cong. District	Alexander J. Powell	Evanston
Crawford	James Ralph Lienesch	O'Fallon
Cumberland	Leslie M. Wakeley	Harvard
Cumberland	Dumar Eugene Puster	Chicago
Cumberland	Samuel B. Spear, Jr.	Mason City
DeKalb	Chauncey Browne Watson	DeKalb
DeKalb	Paul Cyrus Moon	DeKalb
DeWitt	Harrison A. Ruehe	Waukegan
DeWitt	Charles O. Wichman	Red Oak
Douglas	Albert W. Orcutt	Arcola
Douglas	George O. Maurer	Virginia
DuPage	Cyrenius Beers, Jr.	Chicago
DuPage	Arthur S. Ambrose Dou	ner's Grove
Edgar	Logan Laughlin	Paris
Edgar	Joseph Lyon Dunham	Chicago
Edwards	Carl J. Rohrer	Canton
Edwards	Frank H. Dooley	Downs
Effingham	Harley Broadwell Wood	Dietrich
Fayette	C. B. Morrison	Ramsey
Ford	Fred G. Arends	~ Melvin
Ford	Adam H. Anderson	Roberts
Ford	Jesse H. Wilson	Grant Park
Franklin	David Adolph Turner	Chicago
Franklin	Edward Gardiner Howe, Jr.	Chicago
Fulton	Edwin H. Waggoner	Lewistown
Fulton	George Edward Gentle	Farmington
Fulton	Conrad Lee Cattron	Ellisville
Gallatin	William F. Norris, Jr.	Maywood
Greene	Alva B. Meek	Carrollton
Greene	Wilbur Morris Kerchner	Walnut
Greene	Charles T. Meek	Carrollton
Grundy	Edward Harvey Walworth	Morris
Grundy	Frederic E. Moffat	Park Ridge
Hamilton	Joseph M. Vial	LaGrange
Hancock	Dana Hugh Stevenson	Elvaston
Hancock	C. Lee Ewing	Elvaston

Hardin	Edward Kraft Schmidt	Aurora
Henderson .	Earl Herbert Hinman	Cambridge
Henry	Elon Charles Magee	Geneseo
Henry	Elmer Z. Whitney	Osco
Iroquois	Fritz Rein	Gilman
Iroquois	Ira Carl Sailor	Cissna Park
Iroquois	Claude L. Oathout	Cissna Park
Jackson	John R. Lobdell	Carbondale
Jackson	Frank A. Easterly	Carbondale
Jasper	Arthur F. Krueger	Chicago
*	Charles Kelso Ross	
Jasper Jefferson	Louis Pete Bauman	Newton
		Springfield
Jefferson	Heye Wiekert	Emden
Jersey	Oakley B. Rives	Rock Bridge
Jersey	Herbert Updike Landon	Jerseyville
Jo Daviess	William Edward Hart	Brighton
Jo Daviess	Manley B. Mathers	Momence
Johnson _	William K. Galeener	Vienna
Johnson	James G. Frost	Chicago
Johnson	John C. Mackey	Vienna
Kane	William Henry Balis	St. Charles
Kane	Charles B. Jones	Aurora
Kankakee	James P. Fellows	Kankakee
Kankakee	Leslie Eugene Mathers	Momence
Kendall	Robert Partello Mackay	Mt. Carroll
Kendall	Watts C. Cutter	Oswego
Kendall	John Clement Knight	Yorkville
Knox	Strother A. Briggs	Minier
Knox	Charles M. Hunter	Abingdon
Knox	Albert H. Phillips	Aurora
LaSalle	Alfred A. Andrews	Ottawa
Lawrence	P. N. Chase	Aurora
Lee	Joseph Albert Green	Sugar Grove
Livingston	Frank Miller Vail, Jr.	Fairbury
Livingston	Ira A. Erwin	Saunemin
Logan	Delbert M. Tilson	Williamsville
Logan	Charles M. Miller	Atlanta
Logan	H. Ed. Council	Elkhart
McDonough	Ernest D. Walker	Tennessee
McDonough	Paul I. Miner	Adair
McDonough	John Robert Hamilton	Bardolph
McDonough	Claude Gaylord Cox	Macomb
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McHenry	Harold S. Cash	Harvard
McHenry	Frank Maxwell Chase	Harvard
McHenry	Clair E, Hay	Ottawa
McLean	A. J. Johnstone	Bloomington
Macon	Earle M. Dawson	Decatur
Macoupin	John N. Titchenal	Brighton
Madison	Elmer J. Thompson	Nameoki
Madison	Charles William Atteberry	Hillsboro
Madison	Charles H. Stewart	Godfrey
Marion	John E. Whitchurch	Salem
Marion	Karl Joseph Shepard	LaFox
Marion	R. John McLaughlin	Cartter
Marshall	Ernest D. Turner	Wenona
Marshall	Walter Allen Cope	Tonti
Mason	Claude Martin	Mason City
Mason	James W. Cress	Hillsboro
Massac	Bennie W. Lake	Fancy Prairie
Menard	John Harry Cantrall	Spring field
Menard	Henry C. Cline	Athens
Mercer	Otis H. Lee	Hamlet
Mercer	Clay Everett Crapnell	Joy
Mercer	Ross W. Jett	Hillsboro
Monroe	Wilfred T. Fullenwider	Mechanicsburg
Monroe	Earl Craig Essley	New Boston
Monroe	John M. Lounsbury	Irving
Montgomery	Rudolphus K. Turner	Butler
Morgan	Leroy T. Potter	Jackson ville
Moultrie	Chesley B. Freeland	Dalton City
Moultrie	Guy V. Anderson	Chicago
Moultrie	Cecil A Hughes	Gays
Ogle	Leigh Allen Frisbie	Rockford
Ogle	Wilbur J. Carmichael	Rochelle
Piatt	John H. McMillen	Milmine
Piatt	Charles Searle Watts	Monticello
Pike	Alvin Claude Foreman	Pitts field
Pike	Miller S. Roosa	Pitts field
Pike	Edward Wade Sneeden	Pitts field
Peoria	Harold Clayton M. Case	Dunlap
Peoria	Howard H. Corbet	Prince ville
Perry	Frank Turner	DuQuoin
Pope	James Albert Hunter	Peoria
Pulaski	John G. Ruckel	Spring field

Putnam	E. W. Hodge	Kewanee
Putnam	Milo D. Himes	LaFayette
Randolph	Robert Bickenbach	Freeport
Richland	Darius O. Mount	Delavan
Rock Island	W. Gladstone Clark	Carthage
Rock Island	Ernest McC. Clark	Rock Island
Saline	William Heck Kaeser	Pittsfield
Sangamon	Frank L. Stout	Glenarm
Sangamon	Paul T. Robinson	Springfield
Sangamon	Harrison W. Derr	Springfield
Schuyler	Harry Evans Patrick	Swift
Schuyler	Ren W. Carr	Armington
Scott	R. R. Hudelson	Chambersburg
Shelby	Randolph C. Kastler	Chicago
Stark	Leslie L. Downend	Toulon
St. Clair	Murvin T. Harmon	Lebanon
St. Clair	Alfred Tate	E. St. Louis
Stephenson	Raymond F. Pfeil	Freeport
Tazewell	Ralph Allen, Jr.	Delavan
Tazewell	Daniel S. Meeker	Delavan
Union	Perry Elmer Karraker	Dougola
Union	Roy Wesley Shuck	Monticello
Vermilion	Francis E. Newburn	Hoopeston
Vermilion	John Leslie Carter	Rossville
Wabash	J. R. Schrodt	Keensburg
Wabash	Frank Edward Parkinson	
Warren	Fred Henderson	Monmouth
Washington	Mark A. Cooper	Farmingdale
Washington	Morris W. Jackson	Toulon
Wayne	Leo T. Dwyer	Fairfield
White	Charles Henry Rodgers	Brownsville
White	Harmon E. Garrison	Epworth
White	John F. Sterenberg	Fulton
Whiteside	Bayard T. Abbott	Morrison
Whiteside	Charles Leonard Reisner	Sterling
Will	Grant Elmer King	Plainfield
Will	Frank Maitland Milne	Lockport
Williamson	John Lynde Neely	Seward
Williamson	Charles Darwin Brown	Ridgefarm
Winnebago	J. Floyd N. Hoover	Harlem
Winnebago	Evans S. Kern	Rockford
Woodford	J. Frank Felter	Eureka
Woodford	Gayle Schofield	$El\ Paso$

# SCHOLARSHIPS IN HOUSEHOLD SCIENCE

Adams	Addie Florence Wilson	Champaign
Adams	Musette A. Taylor	Cairo
Alexander	Georgia Victoria Anderson	Cairo
Alexander	Louise Lewis	Cairo
Bond	Carrie I. Needham	Urbana
Bond	Helen B. Clarke	Urbana
Boone	Marie A. Gordon	Urbana
Brown	Bess Edna Hersman	Hersman
Brown	Hattie Ethel Riggen	Champaign
Bureau	Carrie M. Pervier	Sheffield
Calhoun	Edith Gwinn	Urbana
Carroll	Bertha Strauch	Chadwick
Carroll	Fern Truman	Urbana
Champaign	Ivaloo Genung	Rantoul
Champaign	Edith Edna McKenzie	Urbana
Champaign	Ethel Baird	Urbana
Christian	Laura M. Sanders	Pana
Clark	E. Irene Mull	Pana
1st Cong. District	Frances Hurford	Glencoc
1st Cong. District	Alice Mead	Chicago
2nd Cong. District	Mabel Florence Bebb	Chicago
3rd Cong. District	Olive May Mattson	Englewood
4th Cong. District	Josephine L. Bessems	Chicago
5th Cong. District	Josephine Ledgerwood	Austin
6th Cong. District	Mabel Clare Wallace	LaGrange
7th Cong. District	Sarah A. Vial	LaGrange
8th Cong. District	Hazel E. Taylor	Chicago
9th Cong. District	Marie P. Cline	Chicago
10th Cong. District	Louise Fatch	Wilmette
Crawford	Miriam Samter	Austin
Cumberland	Annie Thomen	Greenup
DeKalb	Julia Frances Tear	Chicago
DeWitt	Louise M. Murdock	Clinton
DeWitt	Nellie Mae Hartsock	Clinton
Douglas	Emma E. DeWitt	Broadlands
Douglas	Mamie Bunch	Arcola
Douglas	Nelle E. Barrick	Villa Grove
DuPage	Clair Lillian Kienzle	St. Joseph
Ford	Hazel D. Mandeville	Champaign
Greene	Lora Belle Moulton	White Hall
Hamilton	Lillian May King	Plymouth

Hancock	Harriet E. Garnett	Plymouth
Hancock	Martha R. Mourning	Augusta
Heuderson	Ruth Glasgow	Tennessee
Henry	Ruth Warrick	Loda
Iroquois	Pauline Z. Davis	Loda
Jo Daviess	Ada Eleanor Hunt	Ridott
Kane	Blanche M. Webb	Elgin
Kane	Alice A. Bumstead	Dundee
Kankakee	Elsie E. Mann	Kankakee
Kendall	Mary Lucile Waddell	Princeton
Kendall	Franc E. Shreffler	Kankakee
Knox	Sue Wilson	Galesburg
LaSalle	Gertrude L. Elliott	Tonica
Lawrence	Ada L. Baldwin	Dixon
Lee	Juliet Lita Bane	Pontiac
Livingston	Leila Holland	Pontiac
Livingston	Geneva Mae Bane	Pontiac
Logan	Doris A. Osborn	Woodstock
McDonough	Grace Glasgow	Tennessee
McDonough	Mary E. Miner	Adair
McHenry	Olive Manley	Harvard
McLean	Ethel I. Salisbury	Woodstock
Macon	Gayle Threlkeld	Decatur
Madison	Marguerite Kraft	Collinsville
Marion	Bertha Erbes	Centralia
Marion	Mrs. Eva W. White	Salem
Mercer	Alta H. Morgan	Aledo
Montgomery	Clara M. Attebery	Hillsboro
Morgan	Eva L. Blair	Arthur
Moultrie	Alta Ferne Chipps	Sullivan
Moultrie	Fay Helen Bickell	Lovington
Piatt	Emma M. Fahrnkopf	Ivesdale
Pulaski	Helen E. Martin	Granville
Putnam	Anna Belle Robinson	Granville
Sangamon	Helen Babb Barker	Springfield
Stephenson	Florence M. Tanner	Aurora
Wabash	Pearl H. Goben	Danville
White	Carrie Hoskins	Carmi
Will	Villa M. Sprague	Lockport
Will	Cornelia Grace Mather	Plainfield
Winnebago	Gertrude Taylor	Aurora
Winnebago	Elizabeth Fruin	El Paso
Woodford	Meda Engel	Eureka

# SCHOLARSHIPS IN CERAMICS

Jersey	Francis X. McGrath	Jerseyville
LaSalle	Thomas Lyle Boys	Streator
Sangamon	Earl K. Stuart	Springfield

# SUMMARY OF SCHOLARSHIPS, 1909-1910

Honorary County General Assembly Agricultural Household Science Ceramics	198 156 217 84
Total	650

# UNIVERSITY HONORS

#### 1909-1910

AWARDED BY THE FACULTY OF THE UNIVERSITY FOR SCHOLARSHIP

# COLLEGE OF LITERATURE AND ARTS

#### PRELIMINARY HONORS

Oscar Roland Baines Margaret Dupuy Clara Mary Eckhardt Louise Katheryn Goebel Frances Kirkwood Frank Bonner Leonard Liesette Jane McHarry James Allen Nevins Amy Marie Overland Elizabeth Swarthout Malinda Whitaker Edward Kitchell Witcher

# FINAL HONORS

Hannah Beulah Berolzheimer Alida Cynthia Bowler Wilber L Buchanan Agnes Bouton Cooper Obed Lewis Herndon Lola DeWitt McClurg

Frances Milton Morehouse

Lois Maia Miles

William Seed Redhed Bessie Estelle Shackell Ralph Earle Tietje Elkan Turk

Florence Leone White

# SPECIAL HONORS

Lois Maia Miles, in Classics William Seed Redhed, in Economics Ralph Earle Tietje, in English Frances Milton Morehouse, in History

# COLLEGE OF SCIENCE

#### PRELIMINARY HONORS

Arthur Lyle Israel Nellie Nancy Hornor James Vail Stevenson Orville Logan Edwards Charles Kay Hewes Robert Back

Willard Waterous

#### FINAL HONORS

Ewell Gerdes Franken Frank Caleb Gates Nehemiah William Hill Edwin Morton Miller Ethel Claire Pond George Rutledge

#### SPECIAL HONORS

Ethel Claire Pond, in Botany
Frank Caleb Gates, in Botany
Claude Levern Wagner, in Chemistry
George Rutledge, in Mathematics

# COLLEGE OF ENGINEERING

#### PRELIMINARY HONORS

Harvey Franklin Wagner George West Philleo Paul Keiter Miles John William Stokes Roy L Vaniman Glen David Bagley Leo Mahlon Apgar Lloyd Gaston Smith Herman Charles Krannert Elwin Valentine Kratz Fred Guyon Gordon Howard Dimick Myers Walter Charles Voss Lionel Lyman Livingston John Paul Hanna
Edwin Lewis Connell
Earl Huber
Sidney Griswold Martin
Frederick John Schlink
Charles Gordon
Claude LeRoy Hanson
John Francis Seifried
Grover Samuel Arbuckle
Rudolph McDermet
Max Alfred Montgomery
Jefferson Hall Belt
Philip Raymond Elfstrom
William Nichaus, Jr.

Merrill Fairman Lowry

#### FINAL HONORS

Harold Brother Anderson Ralph Roger Bramhall Harry Clow Boardman Orson Allen Carnahan Walter Edward Deuchler Edgar Dwight Doyle Laurence Richard Gully Charles Harris Benjamin Albert Horn

Marcus Sanders McCollister
William Atkinson North
Henry Dixon Oberdorfer
Bernard Carlyle van Pappelendam
Henry Penn
Frank Anson Robbins
Peter Wolff Seiter
William Fred Schaller

Orin Earl Shirley Henry Spafford Thayer

## SPECIAL HONORS

Charles Henry Schnetzler, in Architecture Nolan Dickson Mitchell, in Architectural Engineering Eugene Stuart Hight, in Electrical Engineering Ira Blair Alterkruse, in Mechanical Engineering Edgar Dwight Doyle, in Railway Electrical Engineering

# COLLEGE OF AGRICULTURE

#### PRELIMINARY HONORS

Fred Earl Sweitzer Harry McLauchlan Parsons

FINAL HONORS

George Thomas Bond Martha Matthews Ernest DeWitt Walker Charles Julius Willard

Henry Clay Wood

# COLLEGE OF LAW

# PRELIMINARY HONORS

DeWitt Billman W. M. Doherty E. L. Eagle L. Sieberns C. P. Webb Charles Wham

# FINAL HONORS

Thomas Chester Angerstein Fred Parker Benjamin
Bernard Andrew Strauch

## SCHOOL OF MUSIC

PRELIMINARY HONORS

Amy Irwin Hampton
FINAL HONORS
Elizabeth Rose
SPECIAL HONORS
Mary Mann, in Piano

# SCHOOL OF LIBRARY SCIENCE

FINAL HONORS

John Simeon Cleavinger

# MILITARY HONORS

# COMMISSIONS AS BREVET CAPTAINS, ILLINOIS NATIONAL GUARD, ISSUED BY THE GOVERNOR IN 1910

Warren William Day
Harry David Easterbrook
Clifford Erik Joseph Erikson
Eugene Stuart Hight
Joseph Douglas Hood
Alexander Gibbon Hughes
Lloyd George Jones
Goodrich Quigg Lewis
David Collins Patton

Owen Earle Pence
Frank Davis Preston
Myron Boyd Stewart
Earl Kellogg Stuart
Fred Reeves Tate
Elkan Turk
Thomas William Walton
Alvin Eugene John Wanderer
Frederick William Weston

# REPORTED TO THE ADJUTANT GENERAL, UNITED STATES ARMY, AS DISTINGUISHED CADETS

Eugene Stuart Hight Joseph Douglas Hood Owen Earle Pence Earl Kellogg Stuart Elkan Turk Thomas William Walton Alvin Eugene John Wanderer Frederick William Weston

ROSTER OF OFFICERS AND NON-COMMISSIONED OFFICERS OF THE UNIVERSITY CORPS OF CADETS, 1910-11

## FIELD AND STAFF

Colonel
Lieutenant Colonel
Captain and Regimental Adjutant
Captain and Regimental QuartermasterE. L. Blakeslee
Captain and Regimental Commissary
Regimental Sergeant Major

#### FIRST BATTALION

Major	R. Helmle
First Lieutenant and AdjutantP.	Kircher
Sergeant MajorL.	T. Gregory

Company "A"	Company "B"
Captain, J. P. Fellows	Captain, W. E. Hicks
1st Lieut., E. A. Kircher	1st Lieut., L. E. Dallenbach
2nd Lieut., W. C. Berkemeyer	2nd Lieut., W. R. McIntire
1st Sergt., N. P. Heath	1st Sergt., J. F. Brown
Sergeants, E. H. Leslie	Sergeants, W. O. Andrews
W. V. Kell	H. C. Hohman
C. H. Kessler	J. E. Noon
R. C. Kirchhoff	H. C. Peterson
H. W. Underhill	W. J. Carmichae
Company "C"	Company "D"
Captain, C. O. Reed	Captain, O. H. Lee
1st Lieut., M. E. Weil	1st Lieut., H. B. Hull
2nd Lieut., W. G. Clark	2nd Lieut., S. G. Martin
1st Sergt., C. L. Walduck	1st Sergt., W. J. Broadhead
Sergeants, L. C. Barber	Sergeants, A. K. Atkinson
E. A. Glenz	C. W. Burton
E. S. Kern	E. W. Harris
F. X. Loeffler	A. W. Kimbell
R. S. Gregg	M. R. Bebb

Company "E"

Captain, J. W. Myers

1st Lieut., R. Back

2nd Lieut., E. W. Schwartze

1st Sergt., I. R. Ruby

Sergeants, A. Deckman

A. L. Epstein

L. V. Newton

D. C. Wood

J. H. Hinshaw

# SECOND BATTALION

. DECOND DATTABLON	
Major E. A	A. Herrcke
First Lieutenant and AdjutantL. 1	H. Graves
Sergeant Major E.	H. Leslie

Company "A"
Captain, L. F. Zerbee
1st Lieut., G. D. Bagley
2nd Lieut., L. V. Schundner
1st Sergt., P. C. Gauger

Company "B"
Captain, L. V. Burton
1st Lieut., A. L. Israel
2nd Lieut., R. C. Scott
1st Sergt., C. Thayer

Sergeants, L. A. Boettiger Sergeants, H. F. Doerr E. R. Coolidge W. S. Middleton M. L. Nebel C. A. Schoessel R. L. Keely J. M. Schneider W. C. Voss C. A. Wold Company "D" Company "C" Captain, A. S. Karkow Captain, G. O. Cogswell 1st Lieut., L. M. Apgar 1st Lieut. W. V. Ingram 2nd Lieut., F. B. Leonard 2nd Lieut., A. McB. Simons 1st Sergt., E. J. Healy 1st Sergt., C. A. Brown Sergeants, R. E. Davies Sergeants, P. A. Handke R. C. Harris T. A. Merrill H. B. Morris W. S. Krebs H. C. Osman F. Kubat

# Company "E",

Company V.E.

Captain, E. A. Randall
1st Lieut., A. B. Van Deusen
2nd Lieut., H. B. Ingersoll
1st Sergt., W. K. Palmer
Sergeants, W. A. Blakeslee
H. R. Hoy
J. F. Stillwell
A. G. Wallace

# W. Karkow Third Battalion

Major ... O. W. R. Wanderer
First Lieutenant and Adjutant ... V. R. Sladek
Sergeant Major ... N. C. Ice

# Company "A"

H. M. Gray

Captain, E. F. Heater
1st Lieut., H. T. Leo
2nd Lieut., H. C. Krannert
1st Sergt., L. B. Ermeling

Sergeants, E. F. Holt R. B. Moir

R. U. Nichols W. H. Scales

G. E. Simpson

# Company "B",

H. S. Pfeffer

Captain, J. Zetek 1st Lieut., L. M. Matthews 2nd Lieut., F. E. Sweitzer 1st Sergt., H. C. Thompson Sergeants, H. Hecht

G. W. Porter
E. S. Lee
E. M. Clark
H. D. Valentine

Company "C"

Captain, A. L. Enger 1st Lieut., R. D. Ingalls

2nd Lieut., K. Bebb 1st Sergt., E. H. Swenson

Sergeants, A. W. Davis

J. E. Hirschl

P. V. Rauch

L. B. Vaughn E. A. Reed

Company "D"

Captain, A. W. Wheeler

1st Lieut., A. W. Erskine 2nd Lieut., C. W. Gates

1st Sergt., R. C. Williams

Sergeants, F. M. Atkinson

J. H. Checkley

J. L. Nichols

N. C. Seidenberg

S. I. Sewell

Company "E"

Captain, J. T. Russell

1st Lieut., J. R. Wells

2nd Lieut., E. G. Hoeppner

1st Sergt., M. G. Severinghaus

Sergeants, E. J. Brockmeyer

C. T. Meek

H. N. Powell

M. Tallcott

H. M. Goodyear

Battery

Captain, W. R. Camp 1st Lieut., E. A. Rich

2nd Lieut., W. E. Hart

1st Sergt., M. L. Prindle Gunner, H. J. Troup

Signal Company

Captain, J. D. Frazee

1st Lieut., E. R. Math

2nd Lieut., E. J. Potter

1st Sergt., A. W. Tatge

Sergeants, B. B. Lummis

W. R. Matheny

R. H. Ramev

E. M. Unzicker

## ANNUAL COMPETITIVE DRILLS-1910

WINNER UNIVERSITY GOLD MEDAL......1ST SERGEANT H. T. LEO WINNER HAZELTON GOLD MEDAL.....LANCE CORPORAL H. ECKERT

# ARTILLERY

# University Bronze Medals

1st Lieut., W. R. Camp Private, P. R. Elfstrom Private, L. S. Ferguson 2nd Lieut., E. O. Korsmo

1st Sergt., E. A. Rich Private, G. D. Laing

Gunner, E. G. Hoeppner Private, R. H. Albright Private, G. L. Lawrence Private, A. C. Stahl

Private, B. C. Willis

# INFANTRY

# University Bronze Medals

COMPANY "B," 2ND BATTA	LION, UNIVERSITY REGIMENT
Captain, ———	Private, H. W. Evans
1st Lieut., P. W. Swern	Private, H. L. Hendrickson
2nd Lieut., O. W. R. Wanderer	Private, T. F. Hislop
1st Sergt, M. E. Weil	Private, A. C. Jensen
Sergeant, R. Back	Private, T. M. Kingsbury
Sergeant, H. H. Crawford	Private, H. H. Kirkpatrick
Sergeant, E. J. Potter	Private, J. Kramer
Corporal, F. D. Hull	Private, R. P. Mackay
Corporal, H. M. Jones	Private, L. E. Mathers
Corporal, C. A. Lamb	Private, C. Maxwell
Corporal, C. H. Warnock	Private, H. Nafziger
Corporal, D. P. Woleben	Private, H. C. Osman
L. Corporal, H. F. Doerr	Private, H. C. Peterson
L. Corporal, E. F. Holt	Private, R. G. Peterson
L. Corporal, C. R. Horrell	Private, J. Pollock
L. Corporal, E. S. Kern	Private, E. Redberg
L. Corporal, R. C. Rottger	Private, E. Roberts
Private, W. W. Ainsworth	Private, W. C. Sadler
Private, W. O. Andrews	Private, C. H. Schafer
Private, G. W. Armstrong	Private, R. W. Sheardown
Private, A. K. Atkinson	Private, C. W. Sievert
Private, C. W. Atteberry	Private, C. A. Skoglund
Private, R. E. Bailey	Private, H. B. Stewart
Private, L. C. Bernard	Private, J. B. Sutherland
Private, R. E. Blackburn	Private, E. R. Taylor
Private, F. N. Chase	Private, W. E. Van Vorhis
Private, P. L. Chipps	Private, L. H. Weisfeld
Private, G. C. Comstock	Private, C. E. Whitney
Private, F. T. Coulter	Private, E. W. Williamson
Private, J. C. Duffy	Private, W. H. Woolston
Private, L. T. Dwyer	Private, W. Wyman
Private, C. J. Elliott	Private, H. Young

Private, R. G. Young

# SIGNAL COMPANY

# University Bronze Medals

Sergeant, A. T. Evans Private, W. R. Matheny Corporal, J. G. Fleming Private, J. R. Montigel Private, A. J. Bradley Private, B. F. Morgan Private, A. W. Buckingham Private, R. H. Ramey Private, C. G. DeSwarte Private, R. Smith Private, J. H. Flaugher Private, C. H. Snow Private, A. W. Tatge Private, W. J. Furlong Private, R. Hunter Private, E. M. Unzicker Private, H. W. McDonald Private, H. W. Vestal

Private, R. A. Walker



# RIFLE COMPETITION

# University Bronze Medals

COMPANY "C," 2ND BATTALION TEAM

1st Sergeant, E. H. McFarland Corporal, T. G. Lively

Sergeant, C. W. Gates Private, G. H. Cadogan

Private, C. Colvin

# INTERSCHOLASTIC DEBATERS, 1909-1910

## IN THE CENTRAL DEBATING CIRCUIT

Against Iowa Chesley Matthew Walter Robert Bruce Fizzell Thomas Chester Angerstein Harold James Bandy

Against Wisconsin William Bluford Johnson Edwin Morton Miller

# IN THE STATE UNIVERSITY DEBATING LEAGUE

Against Ohio Fred Harold Railsback Fred Henry Nymeyer Lloyd Kirk Ellsberry

Against Indiana Claude Emanuel Burgener Chester Vincent O'Hern James Vail Stevenson

REPRESENTATIVE IN THE NORTHERN ORATORICAL LEAGUE Irma Elizabeth Voigt

REPRESENTATIVE IN THE INTERCOLLEGIATE PEACE ASSOCIATION Robert Bruce Fizzell

# APPENDIX THE ACADEMY



# THE ACADEMY

#### FACULTY

FRANK WATERS THOMAS, A.M., Principal

# In English-

Celia Anne Drew, Ph.B., English Literature George Merit Palmer, A.M., English Literature and Rhetoric Ava D. Steele, A.M., English Literature and Rhetoric

# In Mathematics-

HOWARD BAKER KINGSBURY, A.B., Algebra and Geometry SIMEON E. BOOMER, A.B., Algebra and Geometry S. JAMES BOLE, A.B., Algebra and Geometry

# In Foreign Language-

GEORGE NELSON TREMPER, A.B., Latin and Greek MARGARET ANNIE SCOTT, French and German

# In History—

\*Harry Thomas Nightingale, A.M., English History, Civics, and Economics

MILTON WINFIELD THOMPSON, A.B., English History, Civics, and Economics

Frances Milton Morehouse, A.B., Ancient, Modern, and American History

# In Commerce-

ARTHUR S. LANGMAS, A.B., Bookkeeping, Commercial Geography, and Physiography

# In Science—

CLAUDE WILLIAMSON SANDIFUR, A.M., Physics JOHN PHILO GILBERT, A.M., Biology DANIEL OTIS BARTO, B.S., Agriculture NELLE MAJOR DICKINSON, B.S., Household Science

# In Music-

MARY ELIZABETH LAFLIN, B.Mus., Piano

<sup>\*</sup>On leave of absence first semester 1910-11.

# THE PURPOSE OF THE ACADEMY

The Academy of the University of Illinois affords to students who do not have access to other accredited secondary schools of the State an opportunity to prepare for college.

It exists to meet the needs of the following classes:

- Students from rural districts who have no high school facilities at home;
- (2) Students whose high school at home offers a course of but two or three years;
- (3) Students who have been delayed in their education and are too old to return to the high school to prepare for college.
- The Academy has no desire to attract students from towns that support good high schools.

# ADMISSION

# (1) FROM GRADED SCHOOLS

Graduates of the eighth grade of city public schools, or of graded country schools, are admitted to the Academy without examination on the presentation of a diploma or certificate of graduation. Other applicants must pass examinations in arithmetic, grammar, and American history.

# (2) FROM ACCREDITED AND CORRELATED HIGH SCHOOLS

Students who come from accredited schools of the University, or from smaller high schools with which agreements for correlation have been made, are admitted to advanced standing, receiving full credit for work already done. Blanks for reports from the principals of such schools will be sent upon application.

# (3) FROM UNACCREDITED HIGH SCHOOLS

Students who have been in attendance at other than accredited schools are admitted on presenting a certificate showing the kind, amount, and grade of work already completed. A blank form for this statement will be sent on application. Upon the basis of this statement, the student is assigned to such classes as he seems prepared for. At the end of the first semester, if the student's work has been satisfactory, the credits from the former school are accepted in those subjects that have been continued in the Academy. For advanced credit in other subjects examinations must be passed. Those who wish to take examinations for advanced credits in physics, chemistry, botany, or zoology must present a note-book.

# (4) STUDENTS OF ADVANCED AGE

With students over eighteen years of age who do not come under any one of the three classes described above, special arrangement for admission may be made upon application to the Principal.

# LIST OF CORRELATED SCHOOLS

# (Correct to November 1, 1910)

The work of the following high schools is accredited by the Academy, either as a whole or in part, under arrangements made in accordance with the "Scheme for the More Complete Correlation of the Two and Three Year High Schools with Accredited High Schools and Academies," proposed by the High School Conference which met at the University of Illinois in November, 1907.

SCHOOL	PRINCIPAL
Findlay	Charles B. Guin
Ohio	J. R. Walker
Patoka	W. B. Sullivan
Pecatonica	B. F. Kepner
Peotone	Walter S. Baker
Piper City	George M. Pettet

For the admission and crediting of students from unaccredited schools with which no such arrangement as that described above has been made, see paragraph 3 under the heading "Admission," above.

#### TIME OF ENTERING-EXAMINATIONS

The Academy course is so arranged that students may enter at the beginning of either semester. Students are received at other times, but those who enter irregularly generally find themselves at a disadvantage.

Examinations for admission, and for advanced credit at the beginning of the second semester, will be arranged with applicants.

#### COURSE OF STUDY

The course of study consists of the subjects included in the entrance requirements of the University. A general statement of the aim and scope of the work undertaken in the various branches may be found on page 86, under the heading, "Description of Subjects Accepted for Admission."

Following is a list of the courses offered in each semester. As there are several sections in most of the subjects, it is generally

possible to get any combination desired. The figures 1, 2, etc., following names of studies indicate the semester of work in the subject. Thus English 1 means beginning English; and English 3, third semester (i. e., first semester of second year) English. Where no numeral is given, the course is completed in one semester.

# FIRST SEMESTER

English—English 1 (classics and themes); English 3 (classics and themes); English 5 (history of English literature).

Mathematics—Algebra 1; Algebra 2; Review algebra (or Algebra 3); Plane geometry 1; Plane geometry 2; Solid geometry.

Foreign Language—Latin 1; Latin 3 (Casar); Latin 5 (Cicero); Greek 1; French 1; German 1; German 3.

History—Ancient history; English history; American history; Civics. Commerce—Commercial geography; Bookkeeping 1.

Science—Physiography; Physiology; Zoology; Physics 1; Agriculture \*1a and 1b; Agriculture \*3a and 3b; Household Science \*1a and 1b; Household Science \*3a and 3b.

Music-Piano

#### SECOND SEMESTER

English—English 2 (classics and themes); English 4 (classics and themes); English 6 (history of English literature).

Mathematics—Algebra 1; Algebra 2; Algebra 3; Plane Geometry 1; Plane geometry 2; Solid geometry.

Foreign Language—Latin 2; Latin 4 (Cæsar); Latin 6 (Vergil); Greek 2; French 2; German 2; German 4.

History-Modern history; English history; American history; Economics.

Commerce-Commercial geography; Bookkeeping 2.

Science—Physiography; Physiology; Botany; Physics 2; Agriculture \*2a and 2b; Agriculture \*4a and 4b; Agriculture \*5a and 5b; Household Science \*2a and 2b; Household Science 5.

Music-Piano.

## OVERSIGHT OF STUDENTS

The organization of the Academy classes is like that of the classes in the University; the students come and go between their

<sup>\*</sup>In Agriculture and Household Science the courses are each onehalf semester in length, except Household Science 5, which extends throughout the second semester.

recitation periods without surveillance. A strict supervision of their work is nevertheless maintained. Explanations of all absences are required, and reports of the work in all classes are received by the Principal at the end of each month. A systematic effort is made to assist every student who is found to be falling below the passing grade. Parents will be promptly informed in any case where the student's work is seriously delinquent. They will receive full reports each month upon application to the Principal.

# STUDENT ORGANIZATIONS

The Academy Athletic Association supports foot ball, basket ball, base ball, and track teams, which play the class teams of the University and the teams of neighboring high schools and academies.

The Hermean Literary Society has for its object training in writing and public speaking, and meets weekly for the presentation of programs, consisting of essays, stories, recitations, orations, debates, and the like; it takes charge of the interscholastic debates of the school.

The Lincoln Debating Club (membership limit, sixteen) has as its special purpose training in parliamentary procedure and in debating.

The Hermean Glee Club, the Academy Orchestra, and the Thalian Society prepare musical and dramatic numbers for the programs of the Hermean Literary Society.

# FEES

Academy students pay each semester, in advance, an incidental fce of \$12.00, and a tuition fee of \$7.50.

For an estimate of average annual expenses, see page 124.

# FURTHER INFORMATION

The Calendar of the Academy is the same as that of the University.

For a special bulletin giving additional information about the Academy, address F. W. Thomas, Principal, Urbana, Illinois.

## ACADEMY STUDENTS

## 1909-1910

Alvord, Genevieve Urbana
Anderson, Bert Allen Chicago
Anderson, Earl Wing Urbana

Anderson, Joshua Clayton Anfinsen, Lyda Della Angerstein, George William Arnold, Rufus Earl Aschauer, Frank Henry Bacon, Gilbert Kyle Bahlmann, Harry Fred Barlow, Harry Dales Barnes, Mildred Evelyn Barrett, Frank Newton Bauer, Frank Michael Baxter, Harry Toley Beal, Glen Irving Bechtold, Edmond Bennett, Edward Martin Berge, Maurice Aurelius Bevier, Ralph Caleb Bialeschki, Mayme Marie Joanna Bigelow, Oliver Marlon Blackmun, Ora Boley, Roy Edward Born, Russell Bowman, Harriett Ellen Boyden, William Henry Bradley, William Winston Britton, Floyd Evanston Brodwolf, Stephen Roberts Brotherton, Roy Earl Brown, Harry Brown, Harry Eugene Buckley, Everett Timothy Budina, Adolph Otto Burnett, Reid A. Busey, Frances Cade, Virgil Boyd Cain, William Leo Campbell, Charles Edgar Carroll, Lee Joseph Casey, Sylvia Nettie Castle, Ora Blanche Cathcart, Robert Irl Caughlan, Ralph

Williamsport, Ind. Leland Hillsboro Beech, N. D. Springfield Chicago Goodenow Chicago Chicago · Chicago Champaian Astoria Brazil, Ind. Belleville Chicago Ranson Shelby, O. Pesotum AlbanyWyndmere, N. D. Olney Champaian Woodstock Wellington McComb. Miss. Mt. Olive ChicagoGuthrie Thebes Wyoming Kilbourne O'Fallon Milford UrbanaSeumour PeoriaBingham Chicago WoodstockUrbanaDeLand. East St. Louis

Christ, Charles Edward Clark, Percy Ellis Clarke, David Roland Clothier, George Hugh Cofoid, Harry Edwin Collier, Jennie Ethel Conard, Orr Davis Coryell, Arthur Brook Courts, Dell H Covle, Harry Boies Cranston, Donald Julius Craw, Grace Margaret Crawford, Elmo Will Creighton, Mary Crow, Lewis Mitchell Cushing, Dudley Henry Cusick, John Joseph Daly, Mary Theresa Darden, Jesse Davidson, Benjamin Franklin Dawson, Francis Anderton Deardoff, Myrtle Idelle Decker, Ben Harry Deemer, Ralph Evan DeMott, Roy Van Liew Dempster, Robert Detering, Oscar Caspar Dickey, Wilford Lyle Dobbins, Verne Donovan, James Leslie Darion, William Edwin Dunck, Henry Joseph Durham, John Barnett Duval, Merritt Henry Ellis, Warren William Elsesser, Oscar Jacob Elworth, Theodore France Eninger, Helen Marie Field, Roswell Francis Fisher, Guy Henry Fleig, Ray Frederick Folgate, Homer Emmett

Cabery Windsor, Mo. Champaign Caledonia Tonica. Bethany Monticello Springdale, Ky. Morning Sun, Ia. Gridley Gibson City Champaign Danville Fairfield Grand Tower Champaign DwightPhilo Memphis, Tenn. DanvilleReynolds Tipton, Ia. Brazil, Ind. Freeport Crookston, Minn. Venice St. Louis, Mo. Bloomington UrbanaChampaign Chicago **Belleville** Rock Island Elgin UrbanaRed Oak Chicago Champaign Chicago Savou Belleville McConnell

Fraser, Jesse Gibe Funkhauser, Paul DeWitt Gallaher, Marion Belle Galster, Augusta Amelia Gardner, Harvey Adolph Garrison, Russell Paul Gault, Mathew Benjamin Geddes, Allen George Gehrig, Edward Franklin Gibson, Ethel Marie Giles, George Leroy Goebel, Irma Goodwin, Philip Ritchev Gordon, Elizabeth Alice Gordon, Alice Mary Gossett, Irene Graham, Charles Wallace Grahame, William Marshall Green, Roy Ezra Greenawalt, Lester Barnes Gregory, Ralph Ailsa Griesbaum, Erwin Griffin, William Leroy Gullett, Noah Guy, Archie Hannis, George Ezra Hardesty, Gladys Mabel Harrover, Mary Agatha Hart, Richard Nelson Hassler, Herbert Deveille Heath, Harold Thayer Helm, Hazel E Helt, Harry Clifford Herndon, Ted Dwight Herzig, Jacob Ferdinand Hewins, Melvin Edwin Hizon, William Wason Hogge, John Edwin Holtzman, Wilfred David Horn, Walter Leopold Housman, John Smith Howard, Mary Miranda

Chicago MattoonUrbanaTower Hill Grifton, N. C. Wayne City Eustis, Fla. Fountain Green Grant Fork Homer Waterman IIrbanaRitchey ChicagoGifford Champaian Springfield Champaign TrbanaDanville Mt. Carmel New Baden Atkinson Elizabethtown Springfield ChristopherHomer Burlington, Ia. Brighton UrbanaRockford Sidney Indianapolis, Ind. Rochester DanvilleLodaUrbana

Kansas City, Mo. Little Rock, Ark.

Crete

Canton

Champaign

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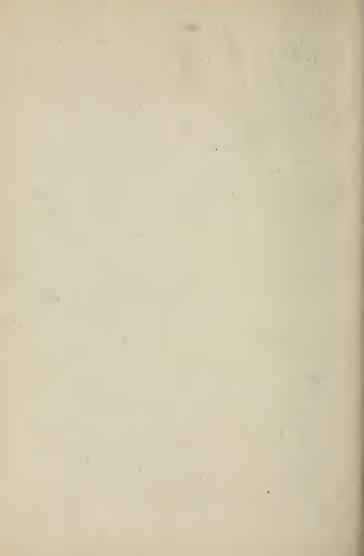
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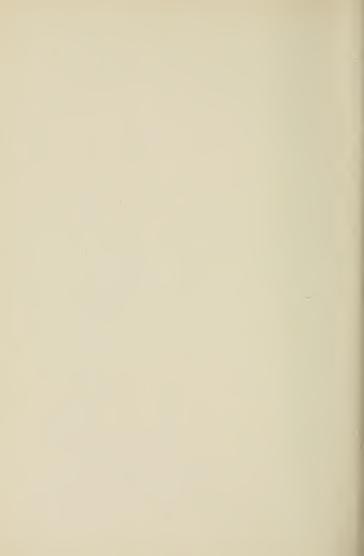
## ANNOUNCEMENT.

The Register is issued in November or December, and refers to work in progress and conditions as they are. There are a few obvious exceptions, such as the calendar and the program of entrance examinations.

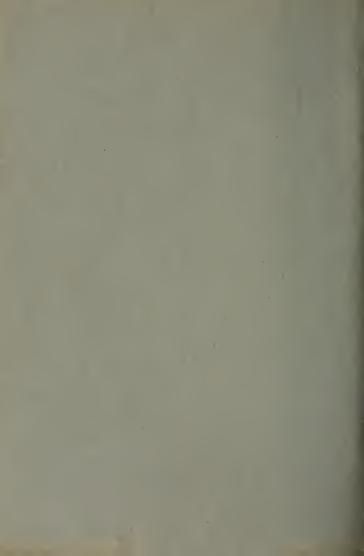
This volume will be supplemented by a group of college announcements, issued in May, to give information in regard to courses, etc., for the next year. These will give more fully the material for each college or school of the University, together with all details of admission and graduation. Persons who know in advance in what college they are to be enrolled should call for the Announcement of that college, and not for the general University Register.











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